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The Health Bulletin

Published by THE NORTH CAROLINA STATE BOARD OF HEALTH

This Bulletin will be sent free to any citizen of the State upon request.

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Vol. XXXII

JUNE, 1917

No. 3

GOVERNOR BICKETT AND PUBLIC HEALTH

(EXTRACT FROM HIS INAUGURAL ADDRESS, JANUARY 11, 1917)

The State Board of Health shall be given ample funds to continue and enlarge its work. The law should require a careful examination of every child who enters a public school, at least twice a year. This can be done by whole-time county health officers or by representatives of the State Board, as the conditions may warrant; but the law should compel it to be done.

"The riches of a Commonwealth
Are free, strong minds, and hearts of health."

To insure such riches, intelligent examination of the children at stated intervals is absolutely necessary.

The State Board deserves the unqualified support of the General Assembly in its campaign against quacks and quackery. The law requires a man to have a diploma from a first-class medical college and to stand a rigid examination before the North Carolina Board of Medical Examiners before he is allowed to write a single prescription for a patient in North Carolina. And yet we permit the sale of nostrums to our people without any adequate knowledge of whether or not they are injurious to health, or have any medicinal value whatever.

I am in favor of a law making it a felony for any man to sell, offer for sale, or advertise for sale in North Carolina any proprietary or patent medicine purporting to cure cancer, consumption, diabetes, paralysis, epilepsy, Bright's disease, or any other disease for which the North Carolina Medical Association and the American Medical Association declare that no cure has been discovered.

I am earnestly in favor of a law requiring all vendors of proprietary medicines to file with the State Board of Health a statement showing the exact composition of such medicines, and that the State Board be empowered to forbid the sale of such proprietary medicines in the State of North Carolina if, in its opinion, it is without curative value in the treatment of the disease it purports to cure.

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FREE PUBLIC HEALTH LITERATURE

The State Board of Health has a limited quantity of health literature on the subjects listed below, which will be sent out, free of charge, to any citizen of the State as long as the supply lasts. If you care for any of this literature, or want some sent to a friend, just write to the State Board of Health, at Raleigh. A postcard will bring it by return mail.

No. 12. Residential Sewage Disposal Plants.	No. 84. Indigestion.
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No. 32. Diphtheria.	No. 86. Venereal Diseases.
No. 39. Tuberculosis Leaflet.	No. 87. Sanitary Privies.
No. 50. Baby Leaflet.	No. 88. Public Health Laws.
No. 52. Malaria and What Everybody Should Know About It.	No. 89. The Common House Fly.
No. 53. Disinfection After Diphtheria, Measles, or Whooping Cough.	No. 90. Typhoid Fever.
No. 54. Disinfection After Scarlet Fever, Sanitary and Hygienic Care of Prisoners.	No. 91. Tuberculosis Laws.
No. 60. Cancer Leaflet.	Teeth, Tonsils, and Adenoids.*
No. 67. Adenoids.	How to Live Long.*
No. 70. Tuberculosis.	Hookworm Disease.*
No. 72. Smallpox.	A War on Consumption.*
No. 73. Measles.	Milk.* Periodic Medical Examination.
No. 74. Scarlet Fever.	Typhoid Fever and How to Prevent It.*
No. 75. Baby Welfare.	Concrete Septic Tanks†
No. 76. Save the Baby.	Anti-Spitting Placards (5 inches by 7 inches).
No. 77. Free medical examination, etc.	Anti-Fly Placards (14 inches by 22 inches).
No. 78. Care of the Mouth and Teeth.	Anti-Typhoid Placards (14 inches by 22 inches).
No. 79. Hygiene at Middle Life.	Anti-Tuberculosis Placards (14 inches by 22 inches).
No. 80. Prevention of Degenerative Diseases.	Clean Up Placards (14 in. by 23 in.)
No. 81. The Prevention of Colds.	
No. 82. Underweight.	
No. 83. Overweight.	

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THE Health Bulletin



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Vol. XXXII

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EDITORIAL BREVITIES

To heal the sick was once the only aim of the physician. Now his greatest ambition is to prevent sickness.

Why not apply the same sane common sense to your health that you apply to your business? As far as you yourself are concerned, and as far as your family and business are concerned, it is the most important thing in the world.

Have you ever asked your doctor what causes and what prevents Bright's disease, heart failure, hardening of the arteries, and apoplexy? And have you ever asked him to look you over to see if any of these diseases are undermining your health, so that if such were the case you could ward them off?

The average person can eat good, plain, wholesome food in moderation all his life without ever being aware that he has a digestive apparatus. It is only when he overeats or is otherwise indiscreet as to his meals that he knows he has a stomach and one that affects his whole being.

As important to the soldier as are good feet, good eyesight, and good brains, neither of these is considered quite as important as good teeth. A soldier may have good feet, good eyes and brains, but if he hasn't good teeth

so that he may properly chew his food and keep well and strong, of what service will good feet, good eyes, and good brains be to him? For the reason that the soldier's health depends so largely on the condition of his teeth, good teeth are said to be a soldier's first and most necessary equipment.

NEW HEALTH LAWS

What the Legislature Did in the Interest of Better Health in North Carolina

THE last General Assembly, backed by Governor T. W. Bickett, enacted probably more modern and progressive health legislation than any other General Assembly North Carolina has ever seen. While there were several pieces of valuable legislation which failed of passage, there was enough other good legislation enacted to amply justify calling this a truly public health Legislature.

Chief among the new health laws enacted were a State-wide Quarantine Law, a Medical Inspection of Schools Law, a Rural Sanitation Law, a Law for the Prevention of Blindness, a Hotel Inspection Law, and a Law Requiring the Inspection and Hygienic Care of Prisons and Prisoners.

The Quarantine Law

Heretofore the individual towns, cities, and counties were left to their own devices for dealing with or not

dealing with contagious and infectious diseases. It is unnecessary to describe the chaotic, inefficient methods that obtained. The results are reflected in our excessive death rates from contagious and infectious diseases.

After July 1, 1917, all cases or suspected cases of contagious or infectious diseases will be reported by the physicians in attendance or householders to a county quarantine officer within twenty-four hours, and each county quarantine officer will report daily to the State Board of Health. Rules and regulations governing quarantine of all cases of contagious diseases will be promulgated. By the time this Bulletin reaches its readers copies of these rules and regulations will probably be ready for distribution.

Medical Inspection of Schools Law

Elsewhere in this issue of the Bulletin will be found a complete resume of this important law. Briefly, it provides for the physical examination of every school child in the State every third year, and it even goes so far as to make a nominal appropriation as the State's part to assist in defraying the expenses of treating physical defects. By virtue of this law every school child may receive two physical examinations during his school life, and as a result thousands upon thousands of school children will be relieved of unnecessary physical handicaps of bad teeth, defective sight and hearing, enlarged tonsils, adenoids, hookworm disease, and other defects which greatly reduce their physical and mental growth and the efficiency of our rising generations.

The Rural Sanitation Law

The coöperative rural sanitation law makes an appropriation of \$15,000 annually to be expended in the ratio of \$1 for every \$3 from other agencies. As a result of this law, effective co-

operative health departments will be established in a number of counties and maintained in part from this fund, in part from funds from the International Health Board, and in part from the respective counties in which these health departments are established. As the work becomes more thoroughly established, the support of the State will be gradually withdrawn in order to establish it in other counties. In this way well organized county health departments will ultimately be established in every county in the State.

Prevention of Blindness

The Legislature also enacted a law which provides for the proper treatment of the eyes of all new-born babies with a solution which effectually prevents infant blindness. To make this law effective and to place the proper solution in the hands of every physician and midwife in the State requires an appropriation of \$3,000. The net result will be the saving of the sight of from 25 to 35 babies every year. The wisdom of this law is more apparent when it is considered that by this means the State converts a person, needlessly blind for life and who is always more or less of a charge upon the State and society generally, into an active productive person for life at an initial cost of only about \$100.

Hotel Inspection Law

Through the efforts of the traveling men of the State a law was enacted requiring the State Board of Health to inspect and grade the sanitary conditions of all the hotels and restaurants. This is a very complete law, and it deals with practically every phase of the hotel question. It will do much toward improving the safety and comfort of traveling, as well as to improve the general sanitary tone of the State.

Prison Reform Law

The new prison reform law is a landmark in human progress in North Carolina. It represents some of the most important advances in the humane treatment of prisoners North Carolina or any other State has ever seen. It provides ample opportunity for those in charge of prisoners, prisons, jails, convict camps, and other places of confinement to reform and return true, valuable men and women to take responsible places in society, instead of grinding down the unfortunates with endless hard work under conditions anything but favorable toward their reformation, uplift, and proper training. While the State Board of Health had nothing to do with the promotion of this law, this board is made responsible for the sanitary and hygienic care of prisons and prisoners, be they city, county, or State institutions.

MEDICAL INSPECTION OF SCHOOL CHILDREN

Law of State-wide Application Passed by the Recent Legislature

 HANKS to the untiring efforts of Governor Thomas W. Bickett, the last General Assembly enacted a law providing for the medical inspection of all school children in North Carolina every three years.

The State Board of Health and the State Superintendent of Public Instruction are charged with the responsibility of executing this law. One-third of the State's counties according to population will be chosen this summer for beginning this work. The commissioners of each county will be required to pay a physician for the work. The physician must be selected by the Board of Education of each county. The State Board of Health

must be notified at once of the selection of such physician. The teachers will be supplied with blanks by the State Board of Health and a competent physician will instruct them how to fill out these blanks, one for each child in school. This work must be done at the time specified by the State Board of Health and the State Superintendent of Schools.

When the teacher completes his or her part of the work, the information contained in this record must be placed in the hands of the official inspecting physician. He in turn must have brought to a central point, not more than ten miles from each child's home, on Saturdays, as many children as he can carefully examine. The physician will require something like ten or twelve per cent of the total enrollment, including the children most in need of treatment, to be brought for examination. At the time of such examination the physician must make a record of his findings and send a copy to the State Board of Health, and also give the parent or guardian specific advice as to the necessity for correcting any physical defect within the scope of this examination.

After all the children have been examined (one-third of the State each year), the State Board of Health may divide the sum of ten thousand dollars pro rata, according to school enrollment, among the counties covered in the work each year, provided the county commissioners will provide an equal amount and the total sum does not exceed 40 per cent of the amount needed for treating the defective children. The balance of money necessary for paying physicians, dentists, specialists, etc., for this work at reduced rates must, of course, be furnished by parents or from other private sources.

This law provides for the careful examination, by a good physician, of at

least twenty-five thousand defective children each year, and enables the State to put up one-fifth of the cash in providing a fund of fifty thousand dollars per year for getting these children treated. Not much, it is true, but just that much more than has ever been done before; and with the cordial and sympathetic coöperation of the authorities and people of each county it means the difference between misery and suffering, and health and happiness to twenty-five thousand children each year.

The law makes no discrimination between the poor and the well-to-do; nor between the white and colored races. All are treated alike.

THE BACKWARD CHILD

Medical School Inspection a Friend to Backward Children

 HAT is really meant by the backward child? It means a child who has begun to attend school, who fails to learn as other children do, and who, at the end of the term, is turned back to repeat the course. Backward children are usually regarded as mentally deficient, but the fact is they are usually either diseased or physically deficient.

In this country there are said to be 20,000 children of school age, about 3,000,000 of whom are called "repeaters" because they remain in one grade at school more than one term.

These children, however, are not "repeaters" by the will of an inscrutable Providence, but rather by the law of cause and effect. Their physical condition is at fault. It may be that they have bad teeth and pus forming gums that are filling their systems with poisons that are diseasing, their eyesight is at fault, or that their hearing is bad, or perhaps they have diseased tonsils, or adenoids. Dr. A. C.

Bulla, medical school inspector for the State Board of Health of this State, says that he finds at least 18 per cent of all school children suffering from defects of the eyes, ears, nose, and throat.

Doctor Bulla believes that such defects as any one of these not only hinders a child in school, retarding his education and causing him to be called backward or a repeater, but that it goes with him through life, severely handicapping his efforts and crippling his efficiency. Furthermore, Doctor Bulla believes that the best time to remedy such defects and diseases is when the child is in the first, second, or third grade at school, before these defacing defects such as adenoids, bad teeth, or defective eyes, have gotten in their ugly work, and while they are yet in the stage when removal or correction will be the most easy and effective.

Medical school inspection work is a feature of public health work done by the State Board of Health just to this end: to discover and remove these handicaps to health and education at a time when the results will be most valuable and easily accomplished. Last year three counties made provision for this educational health work, with the result that 10,000 children were examined for defects of the eyes, ears, nose, throat, teeth, and for communicable diseases. This year six more counties, including a number of individual schools and communities, have made arrangements for this work, and thousands of school children are being benefited. Next year approximately one-third of the State will have medical inspection of school children according to the new law proposed by Governor Bickett. Parents are coming to know what health means to the proper development of their children, and how to proceed that their children may have it.

MAKE A DATE FOR FREE EXAMINATION

Sanatorium Will Charge Fee of \$5 for Tuberculosis Examination Unless Patient Makes a Date

 HE State Sanatorium for the Treatment of Tuberculosis will continue to give examinations for tuberculosis free to the people, provided that physicians sending patients there or the patients themselves write beforehand and make an engagement; otherwise a fee of \$5 will be charged for such an examination.

Another requirement connected with this free service is that patients present themselves between the hours of 8 and 11 a. m. on the date set for them; otherwise, they will not only have to wait till the next day for an examination, but will also be charged the fee of \$5.

This ruling has been made necessary for the reason that so many people now demand this service, and at times such large numbers present themselves for examination as to greatly interfere with the regular medical work of the institution. Besides, when the examinations are made out of regular office hours or at any time the patient happens to arrive, it works excessive hardship on the medical staff and demands a service which the institution is not able to meet. Last year 411 such examinations were made, and the indications are that a far greater number will ask for the service this year.

ONE FOR PREVENTION; ELEVEN FOR CURE

The United States is at the present time spending more than thirty-three million dollars yearly for the cure and care of patients afflicted with mental disease, and comparatively nothing for prevention. And yet the perusal of

the report of almost any State hospital will show that in about 50 per cent of the cases admitted the mental disorder is due directly to definite causes which are clearly preventable.

For instance, North Carolina expends \$650,000 annually for the care of her insane and delinquents, and \$55,500 annually for prevention. Where the State spends \$1 for the prevention of disease it spends \$11.60 for the care of the insane and delinquent. Much of insanity and delinquency has a preventable basis. Sixteen per cent of the insanity is due to syphilis. This means that there are 500 insane people in our asylums as the result of syphilis alone. The annual per capita cost of these 500 people is \$170. Therefore, for the care of the syphilitic insane alone the State is spending $500 \times \$170$, a total of \$85,000 a year. Twenty per cent of insanity is traceable to alcohol. If this percentage holds good for North Carolina, we have 600 insane in our asylums as the result of alcohol, the annual per capita cost being \$170, making our bill for taking care of our alcoholic insane $600 \times \$170$, a total of \$102,000 a year. From 5 to 10 per cent more are functional disorders which probably could have been prevented by early treatment.

Proper posture and carriage, with shoulders square, chest arched, head erect, and body well stretched from the waist up, will of its own account contribute much toward relieving our people of the many petty and not a few of the serious ills from which they are now suffering. It is the foundation of robust health, and should be insisted upon in children from the very beginning until it becomes a habit, and as such will displace the disease-breeding "slouchy" habit now so prevalent among people of all ages and stations.



PUBLIC HEALTH AND SANITATION



THE COMMON HOUSE FLY

The Best Way to Have a Flyless Home

HOUSE FLIES used to be one of the commonest things to be found in our kitchens and dining-rooms in the summer time. While they are not even now getting to be rare, they are not quite so common as to quantity or number but "exceedingly common" as to quality. Chief among the reasons why the house fly is getting into such bad repute is because we are beginning to know him better. We are learning about his nativity—his ancestry and place of birth—the manner and method of his bringing-up, and, finally, about his every-day habits and mode of life.

The Story of the Fly

Instead of considering him a nice, clean, respectable little pet, as we once did, we know that his mother laid the eggs from which he and perhaps a hundred or more of his companions were hatched in some accumulation of warm, moist manure, waste, or decaying filth. For fly eggs to hatch they must be laid in some kind of decaying organic matter and supplied with a certain amount of heat and moisture. In from eight to ten hours they hatch into tiny white, squirming, wiggling maggots which burrow down into the manure or filth in which the eggs were laid. After from six to eight days, these maggots grow a shell or coating somewhat like a very small wheat grain in appearance. In two or three days more this shell opens and a full-grown fly emerges. While the

fly is still wet and slippery, he burrows and works his way up through the manure to the open air.

The Danger of the Fly

The fly is no longer considered harmless. Instead of thinking of him as merely a tickling, crawling, bothersome pest, we know him to be a carrier of filth, a spewer and spreader of the vilest and deadliest poisons and disease germs. His daily habits of life lead him to feast on almost anything from manure, tuberculosis sputum, pus, or typhoid dejecta to cake, candy, pie, milk, sugar, or butter. The cost of his maintenance for food, however, is trifling. We base one of our main objections to him upon the fact that his digestive tract is so simple and his digestive liquids so weak that typhoid, tuberculosis, or other germs eaten by him pass out an hour or two later unchanged and are deposited, frequently in a liquid and invisible form, on baby's face, lips, and hands, or on our food, dishes, and furniture.

The common house fly, or typhoid fly, has lost caste not only because we know that over ninety per cent of his kind were bred in manure piles and open privies, or because he feasts on the vilest filth and later deposits it on our food, or because we know that he vomits up such material to dissolve such solids as sugar, and later eats the entire mixture, but also because we have found that the very hairy nature of his body and legs enables him to carry tiny quantities of nasty, nauseating, and disease-laden material to our food and drink.

Remedies

The question of prime importance is, **What are we going to do about it?** Theoretically, it is possible to clean up and keep so clean that flies cannot find sufficient decaying organic matter in which to breed. To a large measure this is practical in certain cities. Unfortunately, it is not practical in the country or in most of our villages and small towns, though undoubtedly a great deal can be done by proper means of cleanliness around stables, privies, hog pens, and other places toward controlling and reducing the number of flies. Ordinarily, it matters little how clean certain farms, homes, or premises are kept. Almost always there will be some near-by slothful, filthy neighbors who will breed enough flies for an entire county. For these reasons our present methods of ordinary cleanliness are far from being entirely successful in the fight against flies.

Fly traps, particularly large fly traps, around barns, stables, groceries, or placed on garbage cans, or other places where flies breed or frequent in large numbers, have been found to greatly reduce the fly population.

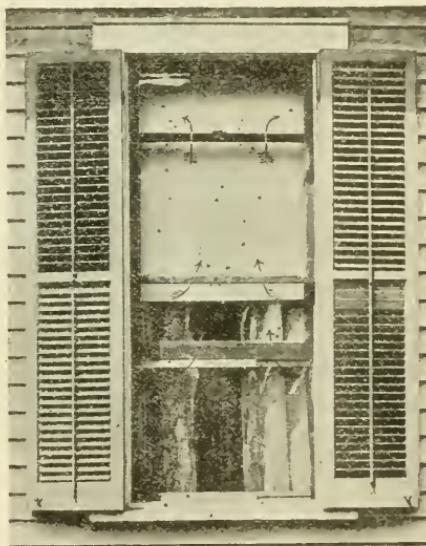
Fly poisons, such as formaldehyde in the proportion of two tablespoonfuls of formaldehyde to a mixture of a half pint of water and a half pint of milk, have been found to kill large numbers of flies, but flies will not drink such poison if other water or drink is available. Furthermore, there is usually a certain element of danger in having fly poisons around the home.

The Best Remedy

By all odds the cheapest and the most effective means yet found for successfully combating the fly evil is **THOROUGH SCREENING OF THE HOME AND PLACES WHERE FOOD**

IS HANDLED from April 1st to December 1st, and swatting at least once a day the few stray flies that dodge in as the doors are opened. It is not sufficient to screen the doors and windows of the kitchen and dining room, or of the downstairs only. The back porch, where much of the food is prepared, should by all means be screened. Again, it is quite important that the upstairs windows be screened, as incoming flies will follow the scent of savory or cooking foods and come down the stairway in discouraging numbers.

Do not use cheap, ineffective extension screens. They rarely fit the win-



A BAD TYPE OF SCREEN

Extension screens rarely fit fly-tight. Flies get in between the screen and the lower sash, as shown by the lower set of arrows. They also work their way up between the upper and lower sashes and enter, as shown by the upper arrows.

dow and make it fly-tight, and they allow flies to come in between sashes. Wire screens, particularly those protecting the entire window, are best. The present retail market price (March, 1917) of black is about two cents per square foot, and three cents per square

foot for galvanized wire. Such screens will usually last from five to ten years, or longer. Where the cost of good wire screens seems prohibitive, excellent results may be obtained by the use of ordinary mosquito netting. Such

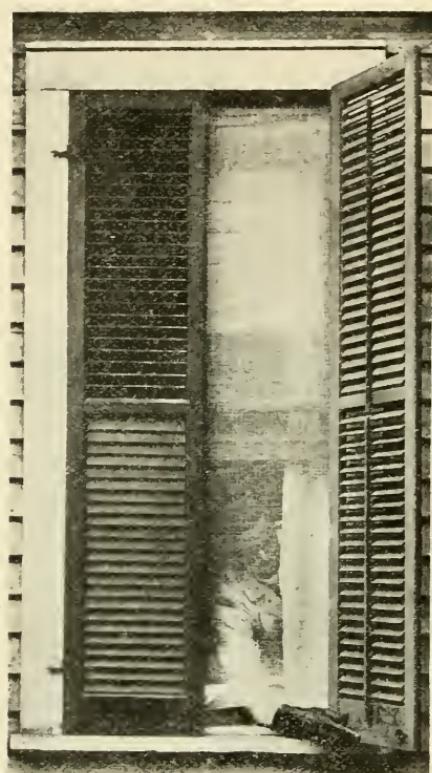
Such moulding costs about a quarter of a cent a foot. Wherever it is desired to open and close shutters from the inside, cut the piece of mosquito netting six or eight inches longer than the window is high and leave it a bit "full" or loose at the bottom, so that the shutter may be operated from the inside at will, as is shown in the accompanying cut. Such mosquito netting screens will last from one to three years.

For the doors there is nothing better than well fitting made-to-measure or machine-made screen doors well braced, carefully hung, and provided with spring hinges. Very satisfactory wire screen doors can be obtained for as little as \$1.25, while the spring hinges and fasteners cost 25 cents more.

The Finishing Touch—Swatting

With the back porch and every door and window screened, the household will be practically free from the dangers and inconveniences of flies. What few flies find their way in as the doors are opened may be killed off once or twice a day by swatting.

Thorough screening not only excludes flies, but it also excludes mosquitoes and prevents the danger of malaria. Once a decent, self-respecting North Carolina family enjoys the benefits of screens in the home, there will be no return to the dangerous, disgusting condition of common house flies.



WINDOW EFFECTIVELY SCREENED WITH MOSQUITO NETTING

The mosquito netting is secured at the top and sides by means of small three-quarter round mouldings or by tacks. It is unfastened at the bottom and left about eight inches too long. This permits closing the shutters from the inside. Such a screen costs about twenty cents.

netting costs about 75 cents per bolt of eight yards in length by fifty-eight inches wide. A very effective and inexpensive method of screening with mosquito netting is to tack it on to the outside of the window frame or by tacking or fastening it with cleats or what is called three-quarter round moulding, to the outside window stop.

HOW DISEASE GERMS LIVE AND GROW

DR. BENJ. K. HAYS, Health Officer of Granville County.

It was formerly believed that the poison germs or virus which produce disease would live for long periods of time outside the body. It was believed that this poison would attach itself to furniture, books, and clothing, and

that it was possible to contract a disease by handling one of these articles years afterward. We used to hear of how people contracted yellow fever by handling a lock of hair from a person dead with the disease, and of how children contracted diphtheria from the toys of other children long since dead of diphtheria. We heard of how people contracted consumption from books that a consumptive had handled years before.

A more accurate knowledge of the life history of disease-producing germs has changed our ideas of such things. So long as the old ideas continue to prevail the contagious diseases will continue to claim our loved ones. Just as soon as we learn the truth about contagious diseases (provided we live up to our knowledge) they will cease to appear in our midst.

When germs leave the human body they tend to die. The life outside the body depends upon three things, viz., light, air, and moisture. Light and air tend to kill the germs. Moisture helps to keep them alive. Germs without moisture exposed to the direct rays of the sun live only a few hours. Germs without moisture in a well lighted and ventilated room, but not exposed to the direct rays of the sun, live only a few days. Germs embedded in sputum and deposited in the direct rays of the sun may live for two or three days. Germs imbedded in sputum and deposited on the floor of a well lighted and ventilated room, but not exposed to the direct rays of the sun, will live for two or three weeks. Germs imbedded in sputum and deposited in a dark room, especially in the cracks of a floor that holds the moisture, may live for six months or longer.

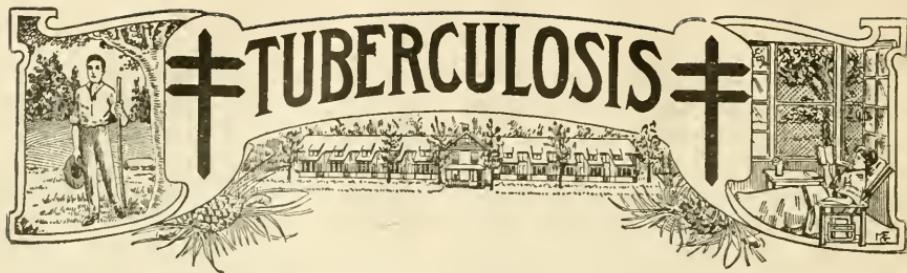
The poison (or germs) of diphtheria, measles, scarlet fever, whooping cough, tuberculosis, and typhoid fever do not grow outside the body except

in one place, and that is in milk. It is well to remember that when disease-producing germs find their way into milk they will grow and reproduce there. It is also well to remember that horses and cats are sometimes subject to diphtheria, while almost all of the lower animals are subject to tuberculosis.

From what has been said, it is clear that the sick room is not a common means of spreading disease. Let us suppose that one of the above named diseases has been present in a room. The patient is now up and out. All bedding, carpets, rugs, curtains, and other articles which hold dust have been taken out and boiled or sunned. The furniture, floors, and walls have been scoured with soap and water. The room is then thrown open to air and dry. Such a room may be considered perfectly safe after two days. A moderately well cleaned room is safe after two weeks, while a room that is dark and without ventilation is never safe.

How are contagious diseases spread? In nine cases out of ten it is by the passing of moisture directly from the mouth of one individual to that of another. This is done by coughing or sneezing into the faces of others; by the use of the common drinking cup or dipper; by the damnable habit of promiscuous spitting; by kissing upon the lips; by the use of towels, handkerchiefs, and napkins that have been used by others; by flies; by saliva upon the dirty hands of persons handling food; by children carrying marbles and coins in their mouths, and by the passing of any substance from mouth to mouth.

It may seem a simple thing to stop all of these things. When they are stopped it will save more than five thousand human lives in North Carolina every year.



ON EARLY DETECTION OF TUBERCULOSIS

Case History, Temperature Record, Sputum Analysis, and Examina- tion Necessary

DOTHING aside from prevention is so important in the fight against tuberculosis as an early diagnosis. But in spite of its importance only about fifteen or twenty per cent of the one and a quarter million cases in the United States are diagnosed in the incipient stage. This is due not so much to the fact that patients don't apply for diagnosis and treatment until the disease is past its incipiency, as to the failure of the profession to make the diagnosis until the patient is beyond the curable stage. This statement is corroborated by the experience of other sanatorium workers, and it is all the more serious when a close study of the situation reveals the fact that this failure to make an early diagnosis is due very largely to carelessness, to a failure to employ all the ordinary methods which are within the reach of every physician. The four essentials in diagnosing tuberculosis are a careful history of the case, a proper temperature record, a sputum analysis, and a physical examination.

An accurate history is very important, and a synopsis of the most prominent symptoms and of the course of the disease should always be recorded. Some authorities claim that a good history is of as much value as the physical examination.

In early tuberculosis the sputum examination rarely reveals the tubercle bacillus. Sanatorium records show that from 70 to 80 per cent of incipient cases show negative finding. So that unless it is positive, a single sputum analysis is of little diagnostic value. The physician who will rule out tuberculosis because of one negative sputum examination is criminally negligent of his patient's life. But it is of extreme importance that whenever any expectoration is present that it be examined, because a positive finding will confirm the diagnosis. And in case of a negative report, it cannot be emphasized too strongly that at least five or six examinations should be made on successive days and the procedure repeated every month as long as the expectoration continues or until the bacilli are found.

There is nothing in all the realm of medicine more characteristic than the subnormal or normal morning temperature with the afternoon or evening rise in active tuberculosis. To such an extent is this true that the thermometer, properly used, is all that is needed in the large majority of cases to make a diagnosis. It is only natural that tuberculosis should often be confused with malaria and typhoid fever when the physician has no record of the temperature save at the time of his daily afternoon visit. If he would spend only a few minutes in teaching some one in the home how to take the temperature, and have it recorded every two hours, the characteristic curve in tuberculosis would make clear the true nature of the disease.

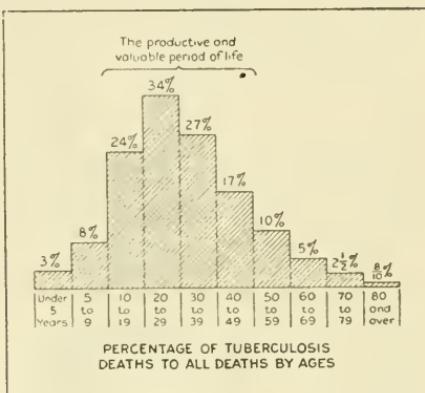
No chest examination is worthy of the name unless the patient is stripped to the skin above the waist line. The examination should be systematic, and the various methods of inspection, palpation, percussion, and auscultation should be applied each in its turn to the whole of the chest. One frequent source of error consists in having the patient only open his shirt instead of removing it, and in limiting the examination to the front of the chest. If there were a likelihood of one's house being on fire, who would be satisfied with anything short of a thorough search of the whole house, that the fire might be located and extinguished before the flames should become uncontrollable? The victim of tuberculosis has not simply his property, but his life at stake, and can we as guardians of his health and of his life put our consciences at rest until we have made a careful search over the whole of his chest, both front and back for every possible focus of infection?

The most important feature of the chest examination and the one most frequently neglected is to have the patient cough. It is during the deep inspiration following the cough given at the end of expiration that adventitious sounds in tuberculosis are most frequently elicited. Oftentimes this cough will reveal rales in early tuberculosis when all the other findings are normal.

Since tuberculosis is many times the most common of all diseases, and since it is responsible for one-tenth of all the deaths and about one-third of all the sickness in the human race, let me urge, in conclusion, that the profession adopt an attitude toward the great white plague of eternal vigilance and suspicion, and always eliminate tuberculosis before making any other diagnosis.—Dr. P. P. McCain, Sanatorium, N. C.

TUBERCULOSIS CAUSES

- 3% of all deaths below the age of 5.
- 8% of all deaths ages 5 to 9.
- 24% of all deaths ages 10 to 19.
- 34% of all deaths ages 20 to 29.
- 27% of all deaths ages 30 to 39.
- 17% of all deaths ages 40 to 49.
- 10% of all deaths ages 50 to 59.
- 5% of all deaths ages 60 to 69.
- 2½% of all deaths ages 70 to 79.
- 8½% of all deaths ages 80 and over.



Three deaths from tuberculosis at age 100 or over occurred in 1913 in the United States registration area.

Note that about one out of every three deaths between ages 20 and 29 are from tuberculosis.

One out of every four deaths between ages 10 and 50 are from tuberculosis.—Life Extension Institute.

The well need a physician as much as do the ill, says the *Boston Dispensary*, and the business of the physician of today is to educate the people to the importance of this. We have not so much studied the human body in health as in disease, hence the morbid anatomy is ever before us. If it were customary to have an examination at least once a year to see that the bodily machinery is in perfect working order, many cases of Bright's disease and tuberculosis would be caught in their incipiency.

FOR BOARDING HOUSES AND SANATORIA

Rules Governing Boarding Houses and Sanatoria for Tuberculous people.

As to the rules and regulations governing boarding houses and sanatoria for tuberculous people, the following requirements constitute the minimum standards as prescribed by the Tuberculosis Directory, recently issued by the National Association for the Study and Prevention of Tuberculosis:

1. Provision for outdoor sleeping, either on sleeping porches or otherwise.
2. Sputum cups or similar devices must be used by patients and proper disposal of such sputum containers and sputum made.
3. The building or buildings must be clean, sanitary and in good repair; they must also have running water and suitable means of sewage disposal; they must be adequately protected against fire.
4. Each room must be thoroughly cleaned and disinfected at regular intervals and before being used by another patient. The bedding must also be disinfected and aired before being used by a new patient.
5. Food must be of good quality, and the diet must include fresh milk and eggs.
6. Provision must be made for regular monthly visits of inspection by a physician. All patients must be under the care of a physician.
7. Provision must be made for nursing supervision of all patients, and for nursing care of patients who are bedfast.

Beware of pills and purgatives. They are habit-forming drugs. They should only be used like opium, or other habit-forming drugs, under the direct guidance and control of an intelligent and conscientious physician.

FRESH AIR FOR SICK AND WELL

The open-air treatment has been too much confined to the sick. Why should we force healthy, normal children, by compulsory education laws, into *closed* rooms, to breathe exhaled air from the lungs of forty or fifty of their fellows, and wait until the general health is undermined before constructing open-air schools in which to restore them to vigorous health? Nature intends that children shall breathe fresh air, with its natural moisture content, not *baked* and polluted air. A most ridiculous proposition is the present-day method (in vogue in many city school systems) of pumping outside air over superheated steam coils and forcing it, dried of all natural, life-giving qualities, into the classrooms of modern school buildings. And with what result? That your child and your neighbor's child sit for five hours a day in human drying-kilns, with the warm, dry, thirsty air sapping most of the moisture from their little bodies.

NECESSARIES FOR EFFICIENCY AND HEALTH

The necessaries for the efficiency and health of an ordinary agricultural or of an unskilled town laborer and his family in this generation may be said to consist of a well-drained dwelling with several rooms, warm clothing, with some changes of underclothing, pure water, a plentiful supply of cereal food, with a moderate allowance of meat and milk, and a little tea, etc.; some education and some recreation; and, lastly, sufficient freedom for his wife from other work to perform properly her maternal and her household duties. If in any district unskilled labor is deprived of any of these things, its efficiency will suffer in the same way as that of a horse that is not properly tended or a steam engine that has an inadequate supply of coal.—*Alfred Marshall.*



CHILD HYGIENE

DENTAL HYGIENE

The Care of the Teeth

CHE coming of baby's first tooth is heralded as a great event—which it really is; yet the mother may be astonished when advised that the day after this tooth makes its appearance is not too soon to commence the regular cleaning, which she must persistently continue until the child itself is old enough to realize the value of these "mouth jewels." If neg-

help of the dentist, you have taken every means to save it.

Baby's first toothbrush is home-made. It is the mother's finger wrapped with soft linen and dipped in a solution of bicarbonate of soda, a teaspoonful to a glass of water. It should be very gently used in cleaning the little tooth and gums.

When baby has two teeth, side by side, a small, narrow, soft-bristle brush should also be used to remove the food particles which collect between the teeth.

See the Dentist Early

The crowns of the teeth, with their beautiful enamel covering, are fully formed when they appear in the gums. It is very important that the mother should have the molars examined by the dentist as soon as they are fairly in place. Sometimes there are minute fissures in the enamel surfaces (especially with the six-year molars) which require filling when the teeth first appear, but generally a perfect protection is given by keeping the enamel clean.

At the Marion School in Cleveland, Ohio, an experimental class was formed of several backward or deficient scholars. Tests, both as to physical and mental condition, were conducted before and after the teaching of tooth care was begun. So successful were the results obtained with this class in proving that the care of the teeth is necessary to good school work that particular attention is now given to the condition of the mouths of the pupils in the Cleveland schools.

That general health demands proper tooth care is again forcibly expressed

EVERY MEMBER OF THE FAMILY
SHOULD FORM THE HABIT OF
BRUSHING THE TEETH THE FIRST
THING IN THE MORNING AND
THE LAST THING AT NIGHT.



lected, the temporary teeth may be lost before the little jaw has grown sufficiently to accommodate the larger teeth of the permanent set, and crowding will result—a condition not only unsightly, but also very conducive to decay. Many lines and wrinkles detracting from the beauty of the face may be traced to toothache—which is only another name for tooth-neglect. When the toothache signal is sounded it may be too late to save the tooth, but you should consult the dentist immediately and not decide to have your child's tooth extracted until, with the

by a noted U. S. Army surgeon who states that "failure to care for the teeth is the direct cause of more disease than any other single cause."

The behavior, too, of a child is naturally affected by the condition of his teeth. The President of the New York Juvenile Asylum is quoted as saying that "more than 90 per cent of the boys come to us with bad teeth"—in brief, bad teeth make bad boys.

Proper Care of the Teeth

Decay of the teeth is due to the development of bacilli in the human mouth, producing an acid which gradually eats away, first, the enamel, and then, much more rapidly, the dentine exposing the pulp, which speedily becomes inflamed. Decay thus once started can never be stopped until it is eradicated from the dentine and the teeth are filled.

Since the tooth structure grows denser with age, the ravages of decay are greater in youth—all the more reason for impressing young people with the importance of the faithful use of brush and dental cream. The bacilli increase and do their work in direct proportion to the neglect of thoroughness of cleaning—conditions being more favorable for their development in some individuals than in others; but if all the cracks and fissures of the enamel are properly filled and the teeth are kept thoroughly cleaned there will be no decay.

Brushing the Teeth

Do not brush the teeth straight across. The outside of the upper teeth should be brushed downward from the gums; the lower teeth upward. Clean the inside of your teeth—next to your tongue—in the same way. The part of the teeth used for chewing food (the grinding surfaces) should be brushed in all directions.

After each meal use a soft quill

toothpick or floss silk to remove bits of food from between the teeth.

Decay causes the teeth to ache, so by preventing decay you prevent pain. The best way to stop decay is to keep the teeth clean.

Twice a year is none too often to see your dentist.

DON'T DOPE THE BABY WITH PAREGORIC

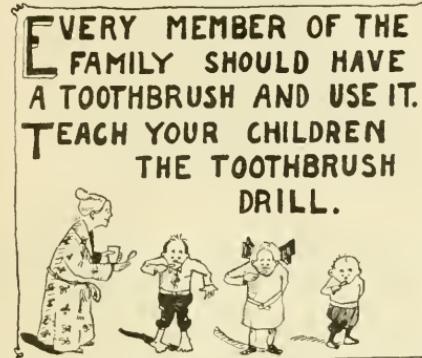
Among the baby killers there is nothing so deadly as dope. In some households it is the custom to keep paregoric on hand for an emergency. Some mothers are thoughtless and careless enough to dope their babies with this drug whenever they cry. Occasionally a mother is so heartless and even criminal that she will dope her baby to make it sleep while she works or goes calling.

Paregoric contains opium, and babies are very susceptible to opium or its alkaloids, the chief of which are codein, heroin, and morphine. Careless dosing with such drugs has sometimes killed babies or led to other very serious consequences. Among other ill effects, opiates profoundly affect the digestive processes by retarding the secretion of digestive fluids. A baby's digestion is too important a function to be tampered with in this fashion. Perfect health, often even life itself, depends upon an unimpaired digestion.

If cattle breeders believe that "scrub stock" is unprofitable, certainly humanity has a greater interest in having every child well born, free from hereditary diseases, and of parents whose habits are and have been free from drug, alcohol, tobacco, and other harmful influences and agencies, as far as possible insuring a sound mind and a sound body to the little stranger.

TEACH OUR CHILDREN HOW BEST TO LIVE

At college I saw fortunes spent every autumn to teach football candidates how to elude opposing tackles, but not a cent to teach them how to elude tuberculosis, typhoid, pneumonia, or cancer. We were required to dig out Latin roots and to unkink logarithmic



gnarls, but there was not required a course in intelligent living.

There was a perennial, concerted, rock-ribbed, steel-girt conspiracy of silence against the human body. The educational system frowned upon bad taste in deportment, manners, language, and literature, but bad taste in life itself was quite the proper thing. It was deemed more important to know quadratic equations than the simple fact that to sleep healthily in a room where the sunbeams never enter is as suicidal as a nibble of cyanide, albeit somewhat slower.

Long before New York's public school children of today learn how to decline "amo" they are taught to decline indiscriminate kisses. Long before they learn how Gettysburg was fought, they learn how fire is fought. The toothbrush drill precedes the first spelling drill. They learn the intelligent way to sneeze or cough. Long before they take up the avenues of Cæsar's entrance into Gaul, they are instructed in the avenue of entrance

of regiments of bacilli into the human body. Gotham's tots learn the necessity of frequent airing of bedding, the proper cleaning of ice boxes, the curability of phthisis. No longer the pathetic spectacle of Alice in Blunderland. When Alice reaches the age of six and matriculates in New York's public schools she is now ushered at once into the wonderland of genuinely useful knowledge of her wisp of a body. And it begins to look as if the public schools of the future were to be a vast system of service stations on the highway of human life.—Newton A. Fuessle, in the *Craftsman*.

BETTER BABIES—BETTER TOWNS

The country-wide campaign for "better babies" has taken a new twist. Cities engaged in the work of lowering the infant mortality rate are using the results obtained to advertise the desirability of the home town. It is being pointed out that a city where the infant mortality rate is low is a good city to live in.

Local boards of trade and similar organizations, in conducting a campaign to boost the home town, have hitherto enlarged upon its broad avenues, its schools, its churches, its hospitals, its parks, but not a word has been said as to its infant mortality rate.

This is a mistake. The best "talking-point" for any community is now believed to be its infant mortality rate. If the rate is low, the community must be regarded as a healthful one. If it is high, the community is a dangerous one.

While all the inhabitants of a city, old as well as young, are affected adversely by insanitary conditions, they react most severely and most noticeably among infants under one year of age. That is why the infant mortality rate of a city may be regarded as an index to the community's sanitary status.—*Wisconsin Health Bulletin*.

WEIGH THE BABY ONCE A WEEK

Watch baby's weight carefully during the warm weather. If he does not hold his own or if he begins to lose weight something is wrong and it is time to call a doctor.

To keep accurate tab on baby's weight the mother must weigh the child regularly. By comparing results she can tell if baby is thriving or losing weight and health.

To weigh the baby, undress him and put him on the pan of the scales, which has first been covered with a clean light cloth or sheet of paper.

After carefully weighing him make a note of the result.

The weight of the average baby at birth is about seven pounds, boys being slightly heavier than girls. Still, a healthy baby may weigh as little as five or six pounds, or, on the other hand, as much as ten or twelve pounds at birth. These weights, however, are the exception.

In the first few days after birth there may be a slight falling off in weight, but in four to ten days this loss is all regained and from then on the baby should show a constant gain.

But a baby that gains weight too rapidly is not always a healthy baby. The ideal in baby feeding is not to produce a fat baby, but a proportionately and well nourished one. The aim is to grow muscle, bone, blood and nerve tissue, not merely fat.

BABY SHOULD HAVE FRESH AIR

Let fresh air blow health blossoms into the cheeks of your baby by keeping it in the open air all day during the hot weather.

If you can arrange it let baby sleep out of doors on the porch, in the yard, or, if nothing better affords itself, near an open window.

But always be sure that baby is shaded

from hot, glaring sun, and protected from dust, strong winds and flies.

A big clothes basket makes a splendid outdoors "bed" for baby. Cover it with mosquito netting and place it in the yard or on the porch.

Remember that babies must be kept quiet and that they require lots of sleep. Up to three years of age a child should sleep twelve hours at night and should have naps, both morning and afternoon.

But baby should sleep alone and on a bed and with bed clothes that are clean, perfectly clean.

Whether sleeping indoors or out of doors, cover the bed or crib with netting to keep out flies and mosquitoes.

BATHE BABY EACH DAY OR OFTENER IN WARM WEATHER

A bath every day for your baby will help to keep the doctor away.

But on hot summer days a sponging off with lukewarm water two or three times a day is necessary to keep baby cool and comfortable.

The water for baby's daily bath should be about body temperature or a degree or two higher. It is best to use a thermometer to determine the temperature.

Always give the bath before baby's feeding time—never immediately after.

When washing baby be especially careful to cleanse the body creases. After drying baby thoroughly, dust with talcum powder, but be sure it is of good grade.

A city may be justly accused of criminal neglect that does not, when it can, provide for a complete system of up-to-date school inspection, and thus permits perpetually in the schools, the existence of diphtheria, scarlet fever, measles, whooping cough, mumps, chicken-pox, small-pox, pneumonia, parasitic affections, etc. Most of these are too frequently, alas, followed by a trail of death and grief. From the schools infected these diseases scatter among the people.

PERSONAL HYGIENE



THE PREVENTION OF PELLAGRA

And How It May be Done by Decreasing the Cost of Living

By EDWARD J. WOOD, Wilmington, N. C.

IN former times in Italy, which was the home of pellagra, it was said that pellagra and poverty were interchangeable terms, and this was certainly true there and elsewhere. Today, in the light of recent investigation, it can be shown that the poor man can decrease the cost of his food and insure protection of his family against this scourge.

Dr. Goldberger, of the United States Public Health Service, has proven that pellagra is due to unsuitable food; that it is not a poisoning, but a deficiency of certain essential substances which are normally present in our food.

Modern Milling Responsible

We have proven in North Carolina that it is safe to go a step further in these observations of Dr. Goldberger and find that some of the errors of modern civilization are really at fault. The appearance of pellagra was marked by numerous abuses in our manner of living which did not occur fifty years ago. Today our people think too much of ease and appearances. It is not always the pretty food which is safest, nor is it always the beautiful white flour of wheat or corn which gives us what our bodies demand if they are properly nour-

ished. Modern milling methods are largely responsible for pellagra. If the old-fashioned mill of fifty years ago was now in use we would see pellagra disappear as rapidly as does ship scurvy when the sailors reach port and fresh fruit. The milling of today aims largely at a product which by its appearance will tempt the buyer. The dirty portion of the grain lies on the outside and is dirty in color because of its composition. But this cortical layer contains a complex body or group of bodies which cannot be dispensed with without the appearance of certain disease conditions. This body is known as vitamin. Little is known of it except that it is one of the most essential bodies to life. It occurs in the outer layer of rice, and when rice is polished it is rubbed off, and as a result the consumer develops beriberi. The reader will ask, why, then, are there no more cases? The answer is that by the conservation of nature other foods make up the deficit. In those who live on one grain, as do the coolies of the East, beriberi results if that one grain is deficient or polished. In the South such conditions as living on one food alone are unknown, and so we do not have beriberi, but we do have pellagra, which, in my opinion, is due to a partial insufficiency.

Our wheat is ground in such an elegant way that the outside is discarded because of its dingy color, and so the cattle get what our children are dying for because of appearances. In the

case of corn the matter is more exaggerated. We have proven that the heart or germ of the corn contains practically all of the vitamin. We have produced experimentally in pigeons and chickens beriberi by feeding corn meal made after the plan of first removing the germ or heart. We have cured the condition by later feeding the portion of the grain removed. We know that this heart contains much fat and that the process of manufacture whereby this heart is removed was introduced because the meal made of the whole grain does not keep well and the dealers had much loss from rancid meal. When whole corn is ground at the water mill and we eat all of it we will never have pellagra, no matter how hard the times become. If we will buy from the grain dealers this heart of the grain which is called Corn Chops and make our bread of it, or add half or even a third to our ordinary corn meal, we will increase the nutritive value tremendously and be eating a much cheaper food. In the same way, if we will buy wheat middlings or shorts and add a portion to our flour there will result the same protection. This decreases the cost of living very materially. It must be remembered that a clean mill can supply us with clean corn chops or wheat middlings just as they supply clean meal or flour. We must not buy the sweepings of the floor, however.

Soda and Baking-Powder Factors

Another factor playing a most important part in the production of pellagra in North Carolina is the use of soda and baking powder. Much has been done along this line by Professor Voegtlil of the Public Health Service, and it has been my privilege to confirm on man many of his views which are of the very first importance to the people of the South. I spoke above of ease, and I repeat that the love of ease

is the chief cause of this second error. Bread can be made more rapidly and with a small fraction of work if these rising agents are used. When heat is applied in this manner of cooking carbon dioxide is liberated, leaving behind a strongly alkaline preparation of soda which is very destructive to the vitamin. If sour milk had been used this danger would be largely offset; but our country people as a rule do not use milk. Those who do are protected from pellagra in so many different ways that this article will not interest them. We are told that the alum baking powders have another danger of the same sort which cannot be dealt with here. The importance of the subject is to warn our people to eat yeast-raised bread, or kneaded or beaten, or old-fashioned hoe-cake or corn pone. Again, we see that a departure from the primitive plan has wrought great havoc. The cotton mill people have, in many instances, fallen into the pernicious habit of adding to all sorts of food soda or baking powder to hasten the cooking and to make the vegetables more tender. It is this class suffering most from pellagra today. Another pernicious practice is the universal use of canned food. Vitamin is destroyed by an excess of heat, and these products are often exposed to an excess of heat in order to prevent any possibility of decomposition. One of my gravest cases in recent years was an old bachelor who had no servant but a room full of empty cans was the silent witness to the source of his disease. Of course, canning done after the pasteurization plan is a very different thing and is to be encouraged right now especially.

The evidence is growing day by day in my work that the use of self-rising flour is a large factor in the production of pellagra. In the first place, the flour used is too highly milled, being thereby deprived of the essential sub-

stance of vitamin. In the second place, the rising agents have a marked tendency to destroy the little vitamin which may have escaped the modern miller. It is not inconceivable that a self-rising product may be made which will not have this harmful effect, but it is much safer to avoid all such products and return to Nature.

Excessive Cooking Harmful

Our people overcook nearly everything except those things needing much cooking, as do cereals, and these are universally undercooked. The choicest cuts of almost priceless beef and mutton are being cooked today in North Carolina to the point where every trace of vitamin is destroyed and, in fact, all the nutritive element is made worthless, leaving behind only those harmful extractives which we hear so much of in the causation of high blood pressure conditions. **Cook your meats less**, and then add to this rule a strong resolve to throw the frying pan out of the window. Apart from injurious effect of cooked grease on our digestive apparatus, an eminent New York physician has recently shown that the vehicle in which our food is cooked may destroy the vitamin. He found that by cooking orange juice in oil it would not protect the children from scurvy, while if the orange juice were cooked in water there was no loss of this power of protection. Therefore, we cannot afford to lessen the value of our precious foods by the addition of costly grease when we know that the grease in itself will cause a double danger.

Nearly all the faulty methods of cooking in the South have been introduced to save trouble and work. It is to be hoped that the next generation of girls will be taught in the schools how to cook and how not to cook, and the reason why. An authority on this matter of cooking has said that the

next best thing Mr. Rockefeller could do after the eradication of the hookworm would be to send through the South a force of authorities to teach the people to discard the frying pan.

If, then, our people will grow their own corn and wheat and take it in small amounts to the local mill and have it ground, and if our housewives will learn again the art of making yeast if too far away to get the manufactured product, and if the soda and baking powder are thrown away, we will see the rapid disappearance of pellagra, our greatest scourge. It will matter then very little what the price of meat is, for we can do very well without it. The high price of wheat and corn will not affect us, and the waste in this new-fangled milling will not be charged up to us and our children. In addition to pellagra, the evidence is growing that many of our nervous disturbances are caused directly by this faulty but beautiful food. Let our slogan, then, be, **Back to the soil and the old water mill.**

TYPHOID AN ACCIDENT

Court Ruling on Death From Typhoid Fever Sets a Precedent

 THE Supreme Court of the State of Wisconsin has ruled that a victim of typhoid fever died an accidental death and has sustained a verdict in his favor against the company that employed him.

The mere fact that the man took typhoid fever while in the employ of the company, would not constitute a charge that he sustained an accidental injury within the meaning of the statute. But the allegation goes further; it states that he contracted the disease through drinking polluted water furnished by the defendant, and the presence of bacteria in the water was the undesigned and unexpected occurrence. The court holds this due to the

negligence of the company that furnished the water.

Scientists have proved long ago that typhoid fever is not an act of God, but on the contrary, an entirely human disgrace. Now if the courts go a step further and decide that it is not a disgrace only, but a *prima facie* evidence of criminal negligence, another long step will have been taken toward the elimination of the disease. City authorities who furnish water to the public have a duty to know what kind of water they are furnishing. As soon as they assume public responsibility of office in a city or town it becomes their duty to know that the public water supply is safe, just as it is their duty to know that their public bridges are safe or that their public schools are not fire traps. The sooner officials appreciate the full significance of this public health principle and their responsibility, the better for them and their constituents.

GUARDING YOUR HEALTH

We constantly read in the daily press accounts of persons dying suddenly who were not suspected of even being in bad health, and also it frequently happens that we are surprised to learn that a friend that we had met within a day or two apparently in perfect health is suddenly found to be desperately ill.

The reason for this is that many diseases are so insidious that the damage to vital organs goes on without warning until the breaking point comes and with it sudden death.

Knowing this to be true, would it not be wise to have an examination made of your physical condition, say at least once a year, in order that you may feel assured that you are not living in a state of false security? If a thorough examination reveals that you are normal, that knowledge alone is worth the trouble and small expense

involved, and if such an examination should reveal that you have some abnormal condition, surely such knowledge is vital to you, that you may have the advantage of remedies applied while there is yet time, to say nothing of the saving in expense and lost time that would inevitably come later.

CAUSE AND PREVENTION OF DEGENERATIVE DISEASES

Many diseases are largely due to defective elimination, or chronic accumulation of toxics in our body, due to one or more of the following causes:

1st—Overeating, especially of meat and highly seasoned foods after middle life. As some one has aptly expressed it, we too often dig our graves with our teeth.

2d—Insufficient exercise, or too much or too strenuous exercise.

3d—Social diseases.

4th—The use of alcoholics and the excessive use of tobacco. In fact, intemperance of any kind.

Probably the greatest determining factor is "the strenuous life." The mad rush for the almighty dollar, and undue worry and anxiety, interfere more or less with all the normal functions of the body. Worry is ten times more disastrous than work.

THINK HEALTH!

"It is not a fear of illness or of death that we should encourage, but a love of health, a sense of responsibility for the care of our bodies, a desire for bodily endurance and efficiency and full achievement,

"If the mind is fixed on these ideals, and the already known means of approaching them are utilized, the needless miseries that embitter the lives of so many may be left to take care of themselves.

"It is not so much necessary to fight disease as to cultivate health for the happiness, contentment and moral gain that it brings."

LIVING LONG AND WELL

In Every Case the Well Balanced Life is the Longest and Best

WHAT profiteth a man that he gain the whole world yet lose his health?

In the race for power and place, for ease of circumstance and relief from the stimulus of hunger, the modern man is apt to forget that unless he is careful of his body he will soon be made to suffer for the infraction of Nature's inexorable physical law. With the loss in body tone comes an equal loss in mental acuity, and the brain which for a time was able to operate despite the complaints of an over-fed, under-exercised, self-poisoned body, stops working.

Statisticians have discovered that the mortality rate of persons in the United States over 45 years of age is increasing. The strenuous life of today is not alone responsible for this. Lack of health-giving exercise, superfluity of diet, lack of restoring sleep, over-stimulation, the high pressure of the race for power, wealth, and position, plus physical neglect—these bring early decay. The goal is reached—wealth is amassed—honor, position, and power are just being grasped, when the apple of accomplishment turns to ashes of dissolution. The brilliant mind becomes clouded, the steady hand is no longer accurate, the eye which once gazed fearlessly on the whole world is dimmed, and it is not long before the final break-up occurs. All of this was entirely preventable.

Other things being equal, it is the man who leads the well balanced life who lasts the longest, whose work to the end is uniformly the best—he who neither overworks nor overplays, neither overeats, overdrinks, nor oversleeps, he who maintains a standard

of simple, healthy diet in moderation, who offsets mental work with physical recreation, who is as honest with his own body as he is with his own business. When success comes to such an one his physical and mental condition is such that he can enjoy in peace of mind and contentment of body the fruits of his labors.

ON TAKING TABLETS FOR INDIGESTION

"Do not diet. Eat what you please, as much as you please, and then some. After each meal take one of Slickem's Mysteriosa Digestive Tablets. These tablets are a scientific combination of seventeen of the best flesh producing chemicals known to medical science. They will make you strong, healthy and vigorous. If you are thin you will get fat. If you are fat you will get thin."

Evidently there must be millions of fools who really believe that you may safely outrage Nature and then escape the consequences by means of a tablet.

With a cocktail before a meal, and a tablet after, you may worry along for a few years. Then, if you continue to suppress symptoms of an outraged stomach—to sit on the safety valve and turn a deaf ear to Nature's protests—you will find yourself afflicted with a more serious disease than dyspepsia—perhaps Bright's disease, or rheumatism, or hardening of the arteries—and even the nature cure may not be able to save you from suffering premature death.—Harry Ellington Brook.

Bright's disease is common in America because so many men work their kidneys harder than they do their heads or their hearts.—St. Louis Bulletin.

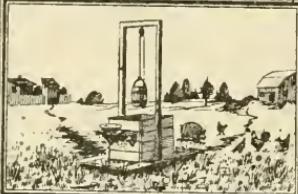
CLEAN UP!

"Cleanliness Is Next To Godliness"



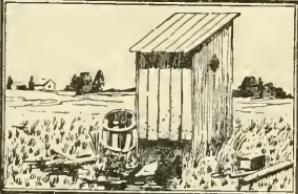
Does your
Back Yard
look
like
this?

Or
like
this?



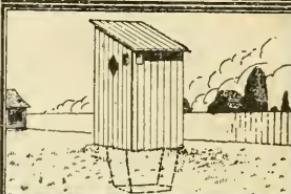
Open-top
Wells
admit
Filth and
Drainage.

Use a Pump
with cement top
and have all
drainage away
from your well.



Is
your Privy
a
Disease
Spreader?

Is it Fly-
tight, placed
over a Pit &
100 yards
from your well?



Does your
Kitchen
look
like
this?

Or
is it
Screened
Clean &
Convenient?



Dirty.
Dusty.
Living Rooms
cause
Poor Health

Keep
the House
Clean
Screened &
Comfortable.



Do you
buy
Food
from stores
like this?

Or
do you
buy
only
Clean Food?



KEEP CLEAN
State Board of Health, Raleigh, N.C.

Large placards of this cut 14" x 22" may be obtained free of charge by addressing the State Board of Health, Raleigh, N. C.



Ellsha M. Mitchell
The *Health Bulletin*
Chapel Hill, N. C.

NOTICE TO READER.—When you finish reading this magazine place a one-cent stamp on this notice, hand same to any postal employee and it will be placed in the hands of our soldiers or sailors ~~lives~~ NO WRAPPING NO ADDRESS.

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JULY, 1917

No. 4

CONSERVE LIFE AND HEALTH

GOVERNOR T. W. BICKETT

WE say that human life is priceless. Yet statistics indicate that in North Carolina we are losing, yea needlessly wasting, thousands of precious human lives every year, together with the efficiency, the earning capacity and the real joy of living for tens of thousands of others. All this is preventable. Much of it is easily preventable. When shall we awaken to the full gravity of the situation? Now, if ever, in war times, every North Carolinian should be at his maximum efficiency, free from all preventable physical handicaps, and in the best physical condition, ready to do a man's full part in waging this world war to a speedy, successful conclusion. To win this war we must conserve our health, vigor and efficiency; we must do health work, both personal and public, as never before.

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FREE PUBLIC HEALTH LITERATURE

The State Board of Health has a limited quantity of health literature on the subjects listed below, which will be sent out, free of charge, to any citizen of the State as long as the supply lasts. If you care for any of this literature, or want some sent to a friend, just write to the State Board of Health, at Raleigh. A postcard will bring it by return mail.

No. 12. Residential Sewage Disposal Plants.	No. 107. Life Saving Facts About Diph- theria.
No. 50. Baby Leaflet.	No. 116. Scarlet Fever.
No. 52. Malaria and What Everybody Should Know About It.	No. 117. Tuberculosis.
No. 53. Disinfection After Diphtheria, Measles, or Whooping Cough.	No. 118. Measles.
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No. 79. Hygiene at Middle Life.	A War on Consumption.*
No. 80. Prevention of Degenerative Dis- eases.	Milk.* Periodic Medical Examina- tion.
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No. 85. Constipation.	Concrete Septic Tanks†
No. 86. Venereal Diseases.	Anti-Spitting Placards (5 inches by 7 inches).
No. 87. Sanitary Privies.	Anti-Fly Placards (14 inches by 22 inches).
No. 88. Public Health Laws.	Anti-Typhoid Placards (14 inches by 22 inches).
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No. 95. Important Facts About Tuber- culosis.	
No. 96. The Baby.	
No. 98. The Teeth.	

*Furnished by courtesy of the Metropolitan Life Insurance Company.

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THE Health Bulletin



PUBLISHED BY THE NORTH CAROLINA STATE BOARD OF HEALTH

Vol. XXXII

JULY, 1917

No. 4

EDITORIAL BREVITIES

Keep well—the first service you owe to your country.

Are you a member of the Red Cross? Are you doing all that you can for the health and comfort of those who are fighting for you?

Do you have good, made-to-measure wire screens, or at least mosquito netting screens at every door and window this summer? If you do not, you are missing a lot of solid comfort, greatly increasing an unnecessary summer annoyance, and needlessly exposing the lives and health of yourself and family. Screen the flies and mosquitoes out!

Every neighborhood, town, or community, especially every industrial center, should have one or more classes in First Aid. All that is necessary to form such a class is to secure not less than four nor more than twenty-five members, the minimum age limit being sixteen years, and the consent of a qualified physician in active practice to act as instructor. The name and qualification of the physician and the number in the class are then sent by the class secretary to the First Aid Division, American Red Cross, Washington, D. C., for approval, whereupon a class roll, a catalogue of supplies, and necessary information will be forwarded to the secretary and the class will be ready to begin work.

When you dream of your work and worry over it, it is time for you to take a vacation. Don't think you can't afford it. It is cheaper and better for you to take it now than to take a longer enforced leave of absence later.

A crying shame it is that it takes such an emergency as a great war to drive us to the realization that an appalling number of our young men are not physically fit to cope in battle with an enemy. If bad teeth, hook-worm disease, malaria, constipation, adenoids, defective eyes, ears, under-weight, and other equally unnecessary, sometimes disgraceful and nearly always easily preventable, defects can so seriously affect our young manhood, how about our young womanhood? How about our middle-aged men and women, those that should be the real factors in the world's work? Let's put an end to such inefficiency. Medical inspection of schools is the immediate step in providing for the future, while periodic medical examinations for adults and sanitation and public health work offer much hope for us of today.

Don't get the idea that good health is merely absence of disease or sickness. It is far more. One may not feel sick at all and still be only 60, 70, or 75 per cent efficient. Good health is 100 per cent of physical efficiency. It is that physical state of being where life is a joy, and plenty of hard work is a pleasure.

VITAL CONSERVATION FOR WAR

Why and How We Should Conserve Our Greatest Waste at This Time

WAR, waste, and conservation are words that are kept ringing in our ears these days. That we are involved in the greatest war the world has ever known, that our own fate and future are absolutely and inseparably dependent upon the outcome of this war, is a certainty. If we win, democracy and freedom of peoples win. If we lose, democracy and freedom lose, autocracy wins, and we stand liable to pay tremendous indemnities to our enemies that will make our seven-billion-dollar Liberty Loan look small. There is but one solution to this situation: WE MUST WIN. But to win is going to tax our resources to the utmost. Already from far and wide are going out appeals for larger food crops and greater economy and conservation along this line.

But we cannot afford to be short-sighted, penny-wise or pound-foolish. It takes more than food to win a war. It takes men and women, and money and resources of every kind to win a war. Before we can have money and resources we must have men and women that are men and women to produce and supply, and continue to produce and supply, money and food and resources of every kind. A nation of weaklings will fail, just as Rome failed, when her people, because of drunkards and debauched victims of disease, neglected to take proper care of their physical machine. Similarly, we cannot expect to win a war with a nation of young men who do not pass even a moderately rigid physical examination. Nor can we expect the physical culls and seconds left at home to supply food, munitions, money, and

supplies almost without end to sustain our own and other armies of fighting men abroad. War requires men that are all men, full of physical vitality and working up to the fullest possible efficiency. In such a gigantic struggle as we now face, every weakling and every sick and inefficient person in our land who is not more than taking care of himself, is just that much dead weight. Similarly, every individual who is pegging along at 60, 70, or 80 per cent of his possible physical efficiency lacks just that much of doing "his bit."

War is a tremendous tax and expense in every way upon a nation. In order to meet this tax, this terrific loss of our best manhood, money and resources, we must conserve, avoid every possible waste, and make for efficiency in a large way. From time immemorial we have continued to suffer a tremendous and unnecessary loss of life, health, happiness, and efficiency from needless and easily preventable disease. Now, if ever, we must "about face" and stop this needless loss and waste. While it is estimated that North Carolina wastes annually perhaps \$20,000,000 worth of food, we are at the same time wasting much more in absolutely needless sickness and loss of life, when figured in cold dollars and cents. For instance, it is estimated that every year about 14,700 North Carolinians die from easily preventable or postponable diseases. If we estimate a person's life to be worth only \$1,700, we have an annual loss from this one item of over \$24,000,000. It is estimated that over one per cent of our population are needlessly sick at all times, and that their annual earning capacity is only \$700. This gives us an annual time loss from sickness of 23,000 times \$700, or \$16,100,000. It is estimated that the average family in North Carolina

spends \$27 annually for medicines and doctors' bills for needless sickness—another loss for our 400,000 families of \$10,800,000. The total of these three items of

\$24,000,000 for needless deaths,
\$16,100,000 for needless loss of time,
\$10,800,000 for doctors' bills and

medicines for needless sickness, is over \$50,000,000 annual health loss for North Carolina from these three items alone. There are, of course, many other items not included, such as loss of efficiency when not sick enough to stop work or call a doctor, and furthermore this estimate does not take into account intangible values such as broken family ties, love, friendship, or the value of pain and suffering.

Is it not time to set our house in order, and not only stop this gigantic loss, but place ourselves on an efficient basis as never before? We cannot put in our best efforts, either in war or in civil life, while laboring under such unnecessary vital losses. To make real headway in this work means better attention to child hygiene, the education of mothers in the matter of raising healthier, stronger, babies; it means better medical inspection of school children so that they don't have to spend four years in school doing three years' work; it means better home sanitation so that we are not cursed with malaria, typhoid, tuberculosis, hookworm disease, etc. It means at least annual, careful, painstaking medical examinations of every adult by a competent physician to determine any oncoming diseases. In brief, it means the establishment of an active city or county health department in every city and county in the State, such department to be armed with nurses, sanitary inspectors, a quarantine officer, medical inspectors, lecturers, and a laboratory. With such we will begin to see results with-

in a year or two. The death rate will decline and the whole physical and moral tone of the city, county, and State will improve. Will we do it? Will we take this step to win the war and to make life fuller and richer after the war? It is up to us now as never before.

WHAT IS THE RED CROSS?

Good Samaritan to all People in Trouble—Our Part in the Great War



THE Red Cross is to the men of the army what the "Good Samaritan" was to the man who "fell among thieves, which stripped him of his raiment and wounded him, and departed, leaving him half dead." The American Red Cross is a branch of the great international organization and has recognition from all foreign governments. It is chartered by Congress, has the President of the United States as its president, and has its accounts audited by the United States Treasury Department. It is the only volunteer relief agency authorized by the government to render aid to its land and naval forces in time of war. Its services are guaranteed to reach the needy and render aid in the most efficient way.

The Red Cross grew out of the generous impulse of the human heart to relieve human suffering met by war or disaster. It has grown from a lonely nurse dressing the wounds of soldiers on the battlefield to the greatest humanitarian society in the world. It is altogether a philanthropic organization, is supported by voluntary subscriptions, and is neutral in war, knowing no race, sect, or religion. It is indeed the Good Samaritan to all folk in their darkest hour.

The work of the Red Cross in time

of war consists in all forms of relief work, from administering to the wounded and suffering of the army and navy to taking care of the dependent families of soldiers and sailors and securing employment for men disabled in the country's service. In time of peace it not only prepares for war, but maintains that state of preparedness that enables it to relieve distress caused by disaster in the quickest and most efficient way possible.

Every chapter has its workrooms and auxiliaries. It furnishes trained instructors for the making of medical and surgical supplies and gives courses in accident and disease prevention, as well as in rendering first aid to the injured. It also provides courses in home care of the sick, home dietetics, and various means of disease and accident prevention.

The purpose of what has above been said concerning the Red Cross is to commend it, its work and its support, to the readers of the Health Bulletin, as the Red Cross is the big brother to the medical profession and all health workers. We believe that every town and community in the State should form either a chapter or an auxiliary, which is a branch of a chapter, and should actively engage in this great work of relief and mercy by making medical and surgical supplies for hospitals, by learning how to care for the sick and wounded and by giving of their means to support this work.

It is the only way those who do not go to the front have of showing their appreciation for, and giving aid to, those who are doing the fighting. The Government provides for their food, clothing and ammunition, but it leaves it to us to provide for their lives in case they are wounded or sick, and for their families in case they leave them dependent and helpless.

Information for forming a Red

Cross chapter, an auxiliary, or a class in First Aid may be had by writing to the American Red Cross at Washington, D. C.

Write for further information and circulars today and proceed at once with the work in your own community among your neighbors and friends. They will appreciate your taking the lead. It is a small part of **your** patriotic duty and theirs. **Do it now.**

PRESIDENT WILSON AND THE RED CROSS

Earnestly Recommends it to the Confidence and Support of the People

 **R**ELIEF work is undoubtedly ahead of us," was asserted by President Wilson in a letter sent to the Washington branch of the American Red Cross, saying that as the official volunteer aid organization of the United States the society should receive the generous support of the American people.

"In order that the relief work, which is undoubtedly ahead of us, should be made thoroughly efficient," wrote the President, "it is most desirable that it should be coördinated and concentrated under one organization.

"Having been made the official volunteer aid organization of the United States, the American Red Cross comes under the protection of the treaty of Geneva and has received due recognition from all foreign governments. Its status both at home and abroad is thus definitely determined and assured.

"The surgeons general of the War and Navy Departments are members of the executive committee of the American Red Cross. By act of Congress medical officers of both branches of the service are detailed for service with it in order that its military relief may be so organized as best to supplement

the medical services of our fighting forces.

"Until the civilian relief is under a trained and experienced personnel especially fitted to care for soldiers' families and other non-combatants, the accounts of the association are audited by the War Department in order thoroughly to safeguard the funds contributed by the public.

"Recent experience has made it more clear than ever that a multiplicity of relief agencies tends to bring about confusion, duplication, delay, and waste. Moreover, it affords temptations to dishonest persons to take advantage of the general willingness of the public to subscribe to such agencies to defraud subscribers and rob the soldier of the assistance he so much needs. Wherever in the present war sufficient volunteer aid has been rendered either to soldiers or to non-combatants it has been rendered under a well organized central body. Experience is certainly the most convincing teacher, and we should learn by these European examples how to conduct our own relief work with the most thorough efficiency and system. With its catholicity and its democracy the Red Cross is broad enough to embrace all efforts for the relief of our soldiers and sailors, the care of their families, and for the assistance of any other non-combatants who may require aid.

"As the president of the American Red Cross, our branch of the great international organization, I most earnestly commend it to your confidence and your support. Upon your aid, upon the amounts and promptness of your gifts and coöperation must depend the fulfillment of the duties that are imposed upon it. It serves so noble and beneficent a purpose that it must appeal to all who love their country and love humanity."

MASON'S IRON CROSS

Valerie D. Ohrenstein sends us this poser from Chicago:

"Have we any right to expect anything from Congress which is idealistic, or for the good of the many, as opposed to the immediate benefit of the few, when we elect men of the type of ex-Senator William E. Mason [now a member of the House of Representatives from Illinois], who is willing to sell his title for the price of a patent-medicine testimonial? The inclosed advertisement appeared in the Chicago 'American.' . . ."

Miss Ohrenstein takes too blue a view of the case. Chicago has, to be sure, a Mason in Congress, a Thompson in the mayor's chair, but there are cities with better mayors, and Chicago itself has better representatives than Mason. Mason is a hold-over from the patent-medicine school of American politics, and as a young nation we must not be too impatient with our elders. Collier's Chicago friend incloses in her letter the "American's" three-column advertisement, with its far-flung headline telling how Mason says

NUXATED IRON INCREASED HIS POWER AND ENDURANCE SO MUCH THAT IT OUGHT TO BE MADE KNOWN TO EVERY NERVOUS, RUNDOWN, ANEMIC MAN, WOMAN AND CHILD.

If that's so, it's a pity that the ex-senator didn't take some "Nuxated Iron" before telling Congress, on the eve of the war declaration, that "Germany had given us no cause for war." "Nuxated Iron," if it is much good, ought to have kept him from saying: "I am against this war because . . . it is a dollar war." It might have kept him, after the declaration, from counseling delay in respect to war measures: "Gentlemen, we have plenty of time. . . . " Mason's tribute to

"Nuxated Iron" starts like this: "I have often said I would never recommend medicine of any kind—" and on second thought he hasn't broken his pledge, either. "Nuxated Iron" contains only about a five-hundredth of a grain of nux vomica alkaloids to a tablet, and a twenty-fifth of a grain of iron—which is shown in an analysis by the American Medical Association. "Nuxated Iron" comes about as near to being a medicine and to having "valuable blood, nerve force, and tissue-building properties" (see the wrapper) as Mason comes to being a patriot and a statesman. The other day Mason had an article by Mayor Thompson of Chicago attacking the Government's war loan and its food-regulation plans printed as an "extension of remarks" in the Congressional Record. Only a few days later Mr. Hastings of Oklahoma was reported to have charged him with treason because of certain remarks on our military law and policies. (Later the word "treasonable" was expunged from the Record.) Chicago is not fortunate in all its statesmen, but Chicago is a big city after all, and we think Miss Ohrenstein need not be much depressed just because Herr Mason has earned a "Nuxated" Iron Cross.—Collier's Weekly.

PATRIOTISM AND YOUR HEALTH

Why not add at least 3 or 4 per cent to your personal efficiency so as to be better able to meet all coming needs? The sanitary sharps agree that the average citizen loses between nine and twelve working days each year because of preventable sickness. Now, if this war is to mean anything to the average man, it ought to mean shaking off only semisensible habits and living up to his best. No one is even suggesting a tax on water; why

not drink it and have more money to buy war loan securities? Air is as free as ever—take your full share. Fewer of us will be in danger of overeating these next few years, and there will be work enough to make us all sleep when bedtime comes. Now is a good chance to get rid of any foolishness about clothes; shoes that curse the feet, collars that cut the wind, and any other nonsensical items in between. This is a 100 per cent war, and we can ill afford to carry the burden of preventable sickness. Taking care of yourself is more than sense now—it is a duty.—Collier's Weekly.

There never has been a time when there were so many reasons why one should keep well and do all in his power to prevent disease as now. The first and the last reason, perhaps, is that sickness is expensive; it costs both time and money, to say nothing of the valuable human life that it wastes annually; and if this country is to win in this great war, it cannot afford to have any of its resources spent on anything so unnecessary as disease. On the other hand, it would be better to spend money to prevent disease.

Disease is no respecter of persons. There is not one kind of consumption for the white people and another kind for the black. A town is like the sky at night: for as a flash of lightning in one quarter of the heavens lights up all the rest, so disease in the poorest section of the town reaches out its fingers and blights the remote home of the wealthy.

As to pellagra, a safe conclusion of the whole matter is that the farm that has a good cow, a pea patch, and a hen coop will not have pellagra on it.



PUBLIC HEALTH AND SANITATION



PROTECT YOUR COMMUNITY FROM CONTAGIOUS DISEASES

Ten Righteous People Can Do It

HND the Lord said, If I find in Sodom fifty righteous within the city, then I will spare all the place for their sakes."

"And he (Abraham) said, . . . Peradventure ten shall be found."

"And He (the Lord) said, I will not destroy it for ten's sake."

The salvation of communities still and always, as in the days of Sodom, depends upon a few righteous, responsive individuals, and not upon the multitude, the irresponsible herd—the shepherd saves the flock.

To every township with from three to five interested, responsive citizens and to every town or city with one or two interested, responsive citizens for each thousand of the population, North Carolina, under a law which went into effect August 1st, can promise safety from unnecessary contagion. This does not mean all contagion, but it does mean a very large proportion of it. On the other hand, the State is helpless to protect those communities where nobody knows, or, which is worse, where nobody cares. Won't you, in this vital matter of protecting the health and lives of your disinterested neighbors and of their helpless children, be one of the ten righteous? Will you make and keep a trade with your conscience, unconditioned on any supplementary pay from the crowd? If so, you can effectually assist our State in protecting your community from epidemics. But before you should

be expected to do this, the State and county must make it possible, first, for you to be able to recognize violations of the State quarantine law, and, second, for you to report such violations without becoming involved in legal entanglements or social embarrassments.

How You May Recognize Unmistakable Violations of the Quarantine Law

If you know of a home in which there is a person sick with whooping cough, measles, diphtheria, scarlet fever, smallpox, infantile paralysis, typhoid fever, or cerebro-spinal meningitis and on the front of which there is not fastened a large yellow placard with the name of the disease printed thereon, you may know positively that the quarantine law is being violated. When the law is violated, one of three parties is guilty—the quarantine officer, the attending physician, or the householder.

When the Quarantine Officer is Guilty.—The quarantine officer has sworn "that he will well and duly execute and perform all the duties as county quarantine officer prescribed by chapter 263 of the Public Laws of 1917, and such duties as are now or may hereafter be prescribed in and by the regulations promulgated by the North Carolina State Board of Health under the authority conferred by section 10, chapter 263, of the Public Laws of 1917." Under this oath it is the duty of the quarantine officer to see that every home in which one of the aforementioned diseases has been reported to exist shall receive a yellow placard with the name of the disease printed thereon, and shall receive the law and the rules and regulations requiring the posting of the placard and

prescribing other necessary precautions for public safety to be carried out by the householder. It is hardly conceivable that the quarantine officer, under the obligation of a solemn oath and with a full realization of the importance of prompt and effective quarantine, has failed to do his duty.

When the Attending Physician is Guilty.—If the physician in attendance upon a case of whooping cough, measles, diphtheria, scarlet fever,

When the Householder is Guilty.—First, if one of the above mentioned diseases is so mild as not to have necessitated the calling in of a physician, the householder, under the requirements of the law, should have reported the case of sickness to the quarantine officer. If he has not done so, he has, either ignorantly or knowingly, violated the law; and if he has willfully violated the law, he is guilty of a misdemeanor. Second, if the

AN OLD FABLE

ONCE UPON A TIME there was a city with a street running along a cliff. In dark and stormy weather so many people were injured by falling over the edge that the citizens gathered together to see what they could do about it. They decided to use their resources to build a hospital at the foot of the cliff so that the injured might receive immediate attention.

Now, it chanced that a great physician visited their land, and the inhabitants showed him the hospital with great pride. But he, looking up at the cliff, said: "Wouldn't it have been cheaper in lives and money to build a wall of protection along the cliff?"

smallpox, infantile paralysis, typhoid fever, or cerebro-spinal meningitis fails to report the case to the quarantine officer, he has failed to perform his duty and is guilty of a misdemeanor. Practically all physicians are interested to a sufficient extent in the prevention of disease and realize sufficiently the vital importance of well-enforced quarantine laws to cause them to report the "catching" diseases. Occasionally, however, physicians are careless or forgetful in performing this their most important civic obligation.

householder has not posted the yellow placard received from the quarantine officer and has not complied with the rules and regulations furnished him in writing by the quarantine officer, he is guilty of a misdemeanor.

How You Can, Without Expense, Inconvenience, or Embarrassment, See That Violations Are Investigated and Punished.

First, you can notify the quarantine officer of your county, whose name and address appear on page 107 of this Bulletin, of probable violations of the quarantine law. The quarantine

officer should regard the information you supply him as strictly confidential. He should investigate the possible violation, and if he finds the law has been violated he should, in accordance with his oath, indict the guilty parties. In investigating the complaint and in bringing the indictment, the quarantine officer can secure the necessary evidence without involving his assistant and informer in legal proceedings or social embarrassment.

The Control of Contagion Rests Primarily on Complete Reporting of Contagious Diseases

A fire department can't put out a fire until it is notified. The State and county machinery for restricting the spread of contagion cannot be put into operation until the disease is reported. The reporting of contagious diseases, every case, is the first and absolutely necessary step in any system of control. After the disease is reported, the

BROUGHT UP TO DATE

ONCE UPON A TIME a great country went to war and needed her strong men to fight her battles. But when her sons were called together only half of them were found fit to do battle, the others being deficient in health and lacking in physical strength. "What shall we do?" said the people. "Unless our men are strong in body they will lose in battle. Let us ask Congress to appropriate a great sum and build hospitals where they may receive treatment and be cured of their diseases." And this Congress approved.

But some said: "A pity it is that great sums of money should be spent for this purpose now, whereas small sums spent a few years ago when these were boys would have made this unnecessary and saved the country's manhood from this blight of ill health and inefficiency."

And the people said, "Yea, truly! A poorer nation, but a wiser one, will we be when the war is over."

Second, if you do not care to report direct to your county quarantine officer, you can report to the State Epidemiologist, Raleigh, North Carolina. The State officer will regard your information as confidential, and will immediately communicate with your county quarantine officer in regard to the probable violation of the law, and in doing so will not use your name. The State Board of Health would advise, however, that wherever possible interested citizens coöperate directly with their local authorities in the enforcement of the quarantine law.

responsibility for controlling its spread rests largely with the State and county, and in the order mentioned.

NAMES AND ADDRESSES OF QUARANTINE OFFICERS.

Counties.	Name.	Address.
Alamance	Dr. C. T. Vernon	Burlington.
Alexander	Dr. S. T. Crowson	Taylorsville.
Alleghany	Dr. J. L. Doughton	Sparta.
Anson	Dr. J. H. Bennett	Wadesboro.
Ashe		
Avery		
Beaufort	Dr. J. G. Blount	Washington.
Bertie		
Bladen	Dr. G. F. Bullard	Elizabethtown.
Brunswick	Dr. J. A. Dosher	Southport.
Buncombe	Dr. D. E. Sevier	Asheville.
Burke		
Cabarrus	Dr. R. M. King	Concord.
Caldwell	Dr. L. H. Coffey	Lenoir.
Camden	Dr. C. G. Ferebee	Camden.
Carteret	Dr. P. B. Loftin	Beaufort.
Caswell	Mr. Henry S. Turner	Yanceyville.
Catawba	Dr. George W. Shipp	Newton.

Counties.	Name.	Address.
Chatham	Dr. L. E. Farthing	Pittsboro.
Cherokee	Dr. H. J. Tilson	Murphy.
Chowan	Dr. J. S. Mitchener	Edenton.
Clay		
Cleveland	Dr. E. B. Lattimore	Shelby.
Columbus	Dr. R. C. Sadler	Vineland.
Craven	Dr. J. F. Rhem	New Bern.
Cumberland	Dr. J. W. McNeill	Fayetteville.
Currituck		
Dare	Dr. Franklin P. Gates	Manteo.
Davidson	Dr. E. F. Long	Lexington.
Davie	Dr. J. W. Rodwell	Mocksville.
Duplin	Dr. J. W. Farrior	Kenansville.
Durham	Dr. Arch Cheatham	Durham.
Edgecombe	Dr. K. E. Miller	Tarboro.
Forsyth	Dr. A. C. Bulla	Winston Salem.
Franklin	Dr. J. E. Malone	Louisburg.
Gaston	Dr. L. N. Glenn	Gaston.
Gates		
Graham		
Granville	Dr. B. K. Hays	Oxford.
Greene	Dr. W. B. Murphy	Snow Hill.
Guilford	Dr. W. M. Jones	Greensboro.
Halifax	Dr. I. E. Green	Weldon.
Harnett	Dr. J. W. Halford	Chalybeate Springs.
Haywood	Dr. J. R. McCracken	Waynesville.
Henderson	Dr. J. F. Cranford	Hendersonville.
Hertford	Dr. W. B. Pollard	Winton.
Hoke	Dr. R. T. Wilkins	Raeford.
Hyde	Dr. L. H. Swindell	Swanquarter.
Iredell	Dr. R. S. McElwee	Statesville.
Jackson		
Johnston	Dr. Thel. Hooks	Smithfield.
Jones		
Lee	Dr. Lynn McIver	Sanford.
Lenoir	Dr. G. S. Mitchener	Kinston.
Lincoln	Dr. J. W. Sain	Lincolnton.
Macon	Dr. H. T. Horsley	Franklin.
Madison	Dr. Frank Roberts	Marshall.
Martin	Dr. W. E. Warren	Williamston.
McDowell	Dr. J. F. Jones	Marion.
Mecklenburg	Dr. C. S. McLaughlin	Charlotte.
Mitchell	Dr. C. C. Smith	Toecane.
Montgomery	Dr. C. Dalgny	Troy.
Moore	Dr. A. McN. Blue	Carthage.
Nash	Dr. Ambler Speight	Nashville.
New Hanover	Dr. C. T. Nesbit	Wilmington.
Northampton	Dr. F. M. Register	Jackson.
Onslow	Dr. R. H. Noel	Swansboro.
Orange	Dr. A. J. Warren	Hillsboro.
Pamlico	Dr. G. S. Attimore	Stonewall.
Pasquotank	Dr. Zenas Fearing	Elizabeth City.
Pender	Dr. P. E. Lucas	Burgaw.
Perquimans	Dr. F. S. McMillan	Hertford.
Person	Dr. Arch Bradsher	Roxboro.
Pitt	Dr. M. T. Edger	
Polk	ton, Jr.	Greenville.
Randolph	Dr. Earle Grady	Tryon.
Richmond	Dr. L. M. Fox	Asheboro.
Robeson	Dr. J. M. Maness	Ellerbe.
Rockingham	Dr. B. W. Page	Lumberton.
Rowan	Dr. C. W. Woodson	Salisbury.
Rutherford		
Sampson	Dr. E. T. Hollings	worth
Scotland	Dr. Peter McLean	Clinton.
Stanly	Dr. J. N. Anderson	Laurinburg.
Stokes	Dr. W. L. McCauley	Albemarle.
Surry	Dr. Ira S. Gambill	Dobson.
Swain	Dr. P. R. Bennett	Bryson City.
Transylvania	Dr. C. W. Hunt	Brevard.
Tyrrell	Dr. C. A. Flowers	Columbia.
Union	Dr. S. A. Stevens	Monroe.
Vance		
Wake	Dr. Z. M. Caviness	Raleigh.
Warren	Dr. Chas. H. Peete	Warrenton.
Washington	Dr. W. H. Ward	Plymouth.
Watauga	Dr. M. G. Anders	Boone.
Wayne	Dr. W. H. Smith	Goldsboro.
Wilkes	Dr. J. M. Turner	No. Wilkesboro.
Wilson	Dr. J. C. Braswell, Jr.	Wilson.
Yadkin	Dr. V. F. Couch	Yadkinville.
Yancey	Dr. J. B. Gibbs	Burnsville.

CONTROLLING THE MID-WIFE PROBLEM

Rocky Mount Board of Health Requires all Midwives to Pass Satisfactory Examination

ROCKY MOUNT has led all other towns in the State, and probably in the South, for all we know, in conducting a school for midwives, even to the extent of requiring them to stand an examination and make a satisfactory grade in order to obtain a permit to practice their work. The city board of health passed an ordinance making it unlawful for any midwife in the city to practice her profession after January 1, 1917, without having passed a satisfactory examination in the elementary principles of midwifery. Free instructions were given by the city health officer, no fee being charged for the examination or for issuing the permit.

The result has been, according to the city health officer, a noticeable falling off in the infant death rate, while at the same time an increase in the birth rate has been noticed, due to complete birth registration, the importance of which was one essential made known to the midwives.

The place filled by midwives in this country, from a health standpoint, is a big problem. The question is, how shall the midwife be so trained and controlled as to become of greatest value, rather than a menace, to those who from ignorance, traditions, environment, or for financial reasons, still seek her services? This, it is believed, can be achieved through training, licensure, and control by State and local boards of health, as the city board of health of Rocky Mount has recently found out.

The extent to which the midwife problem affects North Carolina is seen

through the following figures: Last year there were 55,512 white births in North Carolina and 24,408 colored births, a total of 79,920. Of the white births, 80 per cent were attended by physicians and 20 per cent by midwives, while 80 per cent of the colored births were attended by midwives and only 20 per cent by physicians. That almost twice as many colored babies in North Carolina die during the first week of life as white babies, according to figures from the Vital Statistics Department, is thought to be largely due to the ignorant midwife. That more women from fifteen to forty-four years old die from conditions caused by child-birth than from any disease except tuberculosis is also thought to be largely due to the ignorant midwife. These facts point to the need of stricter laws governing midwives, particularly as it affects their training and ability.

DON'T LET THIS HAPPEN TO YOU OR YOUR HOUSEHOLD

The doctor said "TYPHOID!" How you dread that word! It strikes terror to you now as you hear, in your imagination, the muffled tread of footsteps and low voices near the bedside of the stricken patient, and you ask what cause has brought such sorrow to your unsuspecting household!

Your own home had sanitary facilities, sewers and screens, perhaps, and clean, well-kept grounds, and yet typhoid came unbidden—the unwelcome guest.

WHY? you ask. Look about you for the reason. Watch that little fly buzzing harmlessly near the sick-room door. Where does he come from and what is his business here? Ah! You have it!

Over in yonder hollow is a plain, ordinary, outdoor privy. Nothing unusual about it. You have seen it be-

fore. Perhaps there are others nearer or even farther away!

BUT THERE IS THE CAUSE! One little fly regaled himself in yonder closet, took his fill of filth and covered his body and legs with the deadly typhoid germs, then came to your own kitchen and dining-room to walk upon the butter, feast upon the cake, or scrape his feet on the rim of the baby's bottle; and found you and your family disarmed. But how?

You had promised yourself that when this summer came, you and your household would be vaccinated against typhoid fever; but did you? You kept putting it off till a more convenient season, and already the doctor has said "typhoid"!

What would you not give to have that peace of mind that comes from having done one's duty? You saw yours, but you neglected it.

Oh, yes, you will never let it occur again. You and the remainder of your household will at once be vaccinated. But it may be too late to save you. It certainly will not save the stricken patient from suffering weeks and perhaps months of burning fever. It may not save you of, perhaps, a funeral, but it could have saved you all.

Talk Health. The dreary, never-changing tale
Of mortal maladies is worn and stale.
You cannot charm or interest or
please
By harping on that minor chord—
disease.

"Whatever the weather may be," says
he—
"Whatever the weather may be,
It's the songs you sing and the smiles
you wear,
That's a-making the sun shine every-
where."

PERSONAL HYGIENE



HOT WEATHER HEALTH

How to Keep Cool, Comfortable, and Healthy During Hot Weather

DON'T dread or worry about the hot weather. That makes its coming all the worse. Recognize that it is coming, then get ready for it.

Much can be gained by really getting ready for hot weather. For instance, did it ever occur to you what a tremendous drain it is on your nerve force, in other words, your "pep," in hot weather to be bothered with house flies crawling over and tickling your anatomy by day, to say nothing of the mosquitoes by night? Without screens flies materially disturb one's rest or prevent us from getting our full eight hours sleep each day. To successfully battle against hot weather requires that we get a full eight hours good sleep out of every twenty-four, and if this is shortened or disturbed by flies, even this handicap may be enough to spell the difference between health and sickness during the hot weather. Good screens or even mosquito netting at every door and window would solve this problem for the entire family all summer long. Furthermore, if good wire screens are installed they may confidently be expected to last for five to ten years.

Now one more word about that "full eight hours of good sleep." You can hardly expect to be living, working, and feeling at your best if you have to retire to a hot, stuffy bedroom with one

or two small windows where it is so hot you have to swelter for hours until it cools off enough to permit you to get to sleep, only to have to get up before you have been fully refreshed. The remedy is simple: Knock out one or two sides of your old-fashioned room and replace them with windows. Then you'll have a modern sleeping-porch, and then you will be able to sleep in comfort and rise in the morn-



SCREENS WOULD SAVE ALL THIS, AND MORE.

ing feeling like the proverbial "two-year-old." Just before retiring, a temperate or cool bath about seventy-five to eighty-five degrees forms a splendid "night cap" after a hot day. It is a splendid introduction to a good night's sleep, although many find a cool bath, plunge or dip in the morning as an "eye-opener" even more to the point to start the day off right. At all events, get a bath every day at least in summer.

What one eats and drinks has a lot

to do with the way one feels during hot weather. Fat meats, concentrated foods, and heat and energy producing foods were certainly not intended for summer use. This is the time to eliminate meats and heat and energy foods, or at least reduce them to a minimum and live on fruits and vegetables. Learn to eat "greens" and all kinds of



THE BEST KIND OF A
NIGHT-CAP
OR AN
EYE-OPENER
FOR HOT WEATHER

"garden sas." Keep the bowels moving freely at least once or twice a day by means of a fruit and vegetable diet, lots of cool (not cold) drinking water, and a little bran gruel, if necessary. Avoid the ice-cold soft drinks of all kinds. "Adam's ale," the pure, unadulterated kind and in large quantities, is far better.

Don't overdress in summer. Save your clothes for winter wear. A bit of good summer advice along this line is to wear as little as the law of the land will allow, and that is mighty little these days—equal rights for men.

Much of our summer discomfort may be avoided by the proper planning of our work. By a little forethought housewives can arrange to minimize the time spent over a hot kitchen stove, and do much of the ironing, preparing of vegetables, sewing, etc., on a shady porch or in the breezy, fresh air. Work that has to be done in hot places can

usually be done during the coolest parts of the day.

Finally, one should not try to go through a summer physically handicapped in any way, unless absolutely necessary. Life is rough enough and hard enough in places, anyway, without having to bear any unnecessary physical ills. For any person to expect to keep up, to say nothing of winning, in this fierce race of life while handicapped by some physical disorder, is the height of folly. It is just as impossible and as ridiculous for a man or woman to try to live up to his rated efficiency while handicapped by bad teeth, constipation, or any one or more of a score of needless ailments, as it is to expect a horse to win a race on three legs or an automobile "hitting on three cylinders." Get fixed up. Go to the best doctor you can find, put your case entirely in his hands. Have him find out what is wrong with you. In the vast majority of cases it will probably be some simple living habit. Correct that habit, hit on all four cylinders, and you will be surprised to see how work and difficulties disappear before you and how much real comfort and joy there is in life in the Good Old Summer Time.

A healthful, well balanced diet calls for a liberal allowance of vegetables. This is why, both for health and economy's sake, we should plant gardens. If people all over the country will only plant gardens and not be so largely dependent on city markets for their table vegetables, not only will there be a big reduction in prices, but a correspondingly big increase in the good health and happiness of the people generally.

RHEUMATISM A PREVENTABLE DISEASE

Pus Poisoning From Teeth, Gums or Tonsils Often the Source of Infection

By EDWARD J. WOOD, M.D., Wilmington

BY focal infection is meant an accumulation of pus somewhere in the body which is discharged into the circulation, producing certain damaging changes to vulnerable parts. All tissues of the body are not equally resistant to this pus poisoning. The parts which are more apt to suffer are the lining membrane of the heart, including the valves, the kidneys, and the joints. Recently it has been found that the heart muscle is often dangerously affected by infections of this kind without producing any visible signs for the doctor to observe until the damage is beyond repair.

One Cure for Rheumatism

Dr. Osler said only a few years ago that rheumatism was a reproach to the medical profession because no progress had been made in the discovery of its cause; hence, no remedy could be intelligently applied. But today any case of rheumatism calls for a searching investigation on the part of the physician, for there is locked up somewhere in the body one or more pockets of pus which must be removed to prevent a further rheumatic involvement and also to cure the present trouble. All of the hitherto used remedies for rheumatism only relieved and never cured. There can be only one cure, and that calls possibly for the combined attack of a good nose and throat specialist, a modern dentist who works for a higher purpose than the outward appearance of the teeth and who will intelligently use the help of the X-ray when needed, and a conscientious physician who is not content

to have as the rule of professional activity, "What is to be must be." If the physician does his part the patient will be directed to the proper dentist and the proper nose and throat man, their findings will be brought together in an intelligent manner and the patient will find relief.

The reader will be impressed with the expensive nature of this investigation. If the patient lives in the country, it becomes necessary to go to the city for the X-ray part of the work, at least. While it is costly, it is much cheaper than the numerous secret remedies advertised, and which will only relieve pain at best, and that often at the expense of kidney irritation or heart depression.

Toothbrush and Dentist Best Preventives

It would be far better to prevent all of this trouble, and it can be in the next generation, by a little education, which had better be done in the public schools. The one preventive measure above all others is the use of the toothbrush. Like all other things, the use of the toothbrush must be made carefully and thoroughly and the child must not be expected to have been born with a knowledge of its use. Many people think that the use of a toothbrush is a part of respectability. While this may be true, from a medical point of view, the average toothbrush used in my practice is almost worse than nothing at all. The toothbrush has only a limited life, and it is worse than useless after it is worn out. Again, a toothbrush to retain its stiffness must be dried out between usings, and should, therefore, not be kept in a toothbrush container. Each individual should have two or more of these useful articles in constant use and should be careful to use them in rotation in order to favor drying and a return of the normal stiffness of the

bristles. But, in spite of all this, the individual must not expect to keep the mouth normal without the help of a competent, conscientious, patient dentist, who is not too busy or too prosperous to have time to practice preventive dentistry. Everyone should visit such a dentist every three or six months and have him carefully examine **every** tooth. If there are no cavities, he will, at least, clean the teeth of the deposit known commonly as tartar, which cannot be removed except with a sharp instrument, which must be applied skilfully even below the gum. This is sometimes called scaling. If the teeth are kept dentally clean by this scaling process, as deep down as the dentist finds necessary, pyorrhea or Rigg's disease will soon become a negligible factor. The idea in the minds of the laity that the use of the ipecac preparations, as emetine, by the mouth or hypodermically will prevent and cure this gum condition is very fallacious. Without the dental cleaning of the teeth such a drug is entirely wasted and should never be used except by the dentist's advice as an aid to what he will do with his instruments.

As a physician it is now my custom to begin all examinations with an examination of the teeth. It is often a very embarrassing duty to have to tell intelligent patients that their mouths are dirty, uncared for by themselves, and needing dental treatment. It is surprising to find how few well dressed people are acquainted with the personal touch of the toothbrush.

Tonsils Often Source of Infection

The next important focus of this kind of infection is the tonsils. Many tonsils that apparently are normal or that cannot be seen on the ordinary examination are "submerged," and when drawn out by the throat specialist's instrument are found to be exuding pus. Such tonsils probably

cause more trouble than the large tonsils, which are usually removed. A case recently under my care was strongly suspected of tuberculosis, but after the removal of the tonsils the little fever immediately ceased and the patient is now well. Tonsils are very important in any study of the source of rheumatism, heart disease, or kidney disease. I recently had under my care two young women with acute Bright's disease which had its origin in infection of the tonsils.

There are other cavities in the head which become infected, especially after colds, which may be the sources of focal infections and require expert attention. Anything but the best attention in such cases is worse than useless. Fortunately for most of us this is the least common source of trouble. It emphasizes the real need for a more thoughtful consideration of the danger of colds. Colds lower the resistance and prepare the way for many infections. Many focal infections would be prevented if we would protect ourselves from colds.

There are other sources of focal infection to be found in certain cases, but these cannot concern us here except in a general way. The public must learn that rheumatism is a preventable disease; that the doctor must find the focus or direct them to some place where the investigation can be made; that the charge so often made that this new teaching is a fad had better be suspended until a fair trial is made.

In conclusion, let me say that no single development in medicine and hygiene can rank in importance with this. It opens up a new field which will almost immediately increase the normal expectation of life. By this means it is reasonable to expect a marked decrease in rheumatism, in heart disease, in Bright's disease, and in other conditions. Many cases of

neurasthenia or nervous prostration are curable by this means and still more cases of neuralgia and eye strain cease to exist after the patient has been conscientiously studied in this way.

THE TEACHER'S PART IN MEDICAL INSPECTION OF SCHOOLS

Sometime ago when a physician was explaining the few simple but important items which relate to the teacher's part in the medical inspection of schools under the law enacted by the General Assembly of 1917, a teacher was overheard to remark in a loud whisper, "Who is going to pay the teacher for this?" That teacher has been teaching for twenty-two years, and has never taught more than five months in any one year, and her highest salary at any time has been forty dollars per month. She has probably been paid entirely too much for the service rendered, if that spirit has been her guiding star. It is good for North Carolina that she is in a tiny minority. The great majority of teachers are overworked and underpaid; but one seldom ever hears a complaint. It is the third time this particular physician has ever heard such an expression from a teacher in regard to doing anything for the correction of physical defects found in the little ones under her care, many of them from homes of poverty and neglect. On the other hand, in many years experience, he has nearly always found the teachers ready and even anxious to help or make any sacrifice necessary to remove any handicap against the progress of their pupils. One big-hearted teacher in 1916 took five dollars of his own money and had a boy's eyes treated. The happiness of the child and the rapid advance made in his class, that teacher said, amply repaid the cost.

There are numbers of instances

where children have been punished at home and at school for lack of progress or for apparent disobedience, when the discovery has been made later that the sole trouble was due to inability to see with distinctness or to hear sufficiently to understand what was desired of them.

The teachers in the public schools of North Carolina have now an opportunity, never presented before, to get every seriously defective child treated. The State and county will provide a fund to help the parents get the special medical or dental treatment needed for every child whose parents are not well able to do this.

It need not take one minute more of the teacher's time to do the little the law requires for each individual child. And it may mean the difference between success or failure in life for the child. It is suggested that the hour set aside each day for teaching hygiene, which the school law has long required, be set aside for the examination of a certain number of children. Take the last hour in each afternoon and send all the children home but those to be examined. Notify the mothers of each of the children to be examined two or three days ahead, so they can be present. Examine, at the same time, all the children of a family in the school so that only a very few mothers will be present and no outsiders. Examine each child in private with no one present except the child's mother. In this manner every child under the average teacher's care may be examined in four or five days; no extra time will be required, and little time will be lost from actual and regular school duties. The responsibility will then rest entirely on the medical inspector appointed for this work in each county by the county board of education, and with the parents. And the "pay" of the teacher will be the satisfaction of a service well done.

CHRONIC CONSTIPATION IN WOMEN

BY B. E. WASHBURN, M.D.*

HE reports of our Bureau of Vital Statistics show the importance of rural sanitation and the prevention of soil pollution. In many of our counties as high as 20 per cent to 25 per cent of deaths from all causes are due to this class of diseases, which includes the infectious diarrheas of infants and young children, the dysenteries, typhoid fever, hookworm disease, and probably some forms of tuberculosis. Now, everybody that gets sick doesn't die, but the number of deaths a community has is always an indication of the amount of sickness. A class of diseases or a problem which is responsible for so large an amount of sickness and so many deaths is, of necessity, an important problem and one which entails great economic loss. To be able to prove that proper home sanitation is economical and a great monetary investment is, at present, the best argument that can be presented.

Osler, in his "Practice of Medicine," states that chronic constipation is the direct cause of many general symptoms, such as debility, lassitude, mental depression, headache, and loss of appetite; while in women it may, and often does, cause painful menstruation, congestion of the pelvic organs with leucorrhea, and neuralgia of the sacral nerves. Also, in women, it is one of the most frequent causes of digestive disturbances, with nausea and vomiting. The Life Extension Institute's publication, "How to Live," says about constipation:

"The injury which comes from the

retention of the body's waste products is of the greatest importance. The intestinal contents become dangerous by being too long retained, as putrefying fecal matter contains poisons which are harmful to the body. Abnormal conditions of the intestines are largely responsible for the common headache malady, and for a generally lowered resistance, resulting in colds and even more serious ailments. Constipation is extremely prevalent, partly because our diet usually lacks bulk or other needed constituents, but partly also because we fail to eliminate regularly, thoroughly, and often.

"Constipation, long continued, is by no means a trifling matter. It represents a constant and cumulative tax which often ends in very serious consequences."

It is very interesting, at this point, to look at the other side of the problem and determine the results and benefits derived from the use of a convenient, sanitary closet. During the intensive campaign against soil pollution in Wilson County, personal visits were made to every home and I made use of the opportunity to make inquiries regarding the prevalence of chronic constipation and to find if this condition bore any relationship to the sanitary conveniences of the home.

Records were made of 192 visits to white homes, the families being selected who owned their homes; and it was found that 86 of these homes had privies (not sanitary), while 106 did not have privies of any type. At each home the woman of the house was questioned regarding her health, the following questions being asked:

1. Do you suffer from chronic constipation?
2. Do you have any symptoms of headache, nausea, vomiting, loss of appetite, depression, painful menstruation, "female trouble," leucorrhea?

*Extract from paper read before the Fourth District Medical Society at Wilson, N. C., June, 1917.

3. Do you take purgatives regularly?
4. Have you consulted a doctor about your constipation?
5. What medicines do you usually take?
6. How much money have you spent during the past year for medicines for the above troubles?

Of the 86 homes with privies, only 8 or 9.3 per cent of the women gave histories of chronic constipation, while of the 106 homes without privies of any kind, 57 or 54 per cent of the women gave definite histories of chronic constipation. The 65 women coming under this class made the following answers to the questions:

All took purgatives regularly.

All suffered from regular headache and depression; 47 had definite periods of loss of appetite; 30 complained of frequent nausea; and 16 of vomiting upon going too long without a bowel motion. Of the more serious symptoms, 46 had painful menstruation each month, and 39 had the commonly called "female trouble," which includes pelvic pain and depression accompanied by leucorrhea. It should be noted, of course, that other things than constipation might cause these symptoms.

Of the 65 patients, only 7 had consulted a physician for the definite trouble of constipation.

The list of medicines and remedies used by the women is large. All of the mild purgatives, such as salts, oil, sodium phosphate, senna, jalap, etc., had been used; while more than half of them gave histories of using such patent medicines as Dr. Miles' Nervine, Swamp Root, Wine of Cardui, Stella Vitae, Vinol, Watkins' remedies, Liver Regulator, Burdock, Rexall Remedies, and numerous others. A few gave histories of using as much as a bottle a week of these remedies.

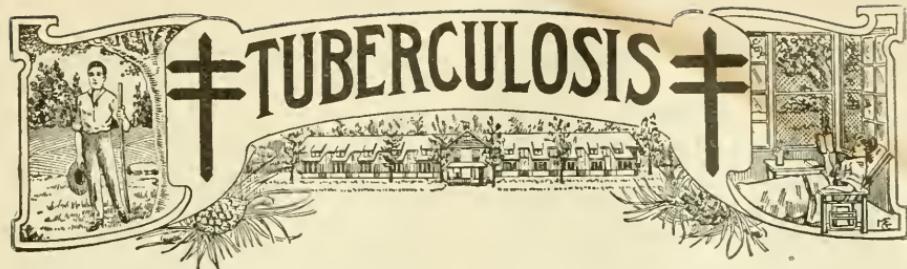
It was very difficult to obtain any definite record as to the amount of money spent for the remedies named above, but the 65 women gave an account of spending at least \$453 within a year.

As a rule, at least 70 per cent of our rural homes are not provided with closets of any type. If this lack induces constipation, as the above statistics tend to show, there is an enormous amount of money wasted each year for constipation—for time and efficiency lost from the condition, as well as for money paid out for unreliable treatment.

The reason for the large number of cases of constipation in homes without privies is due in a large measure to the fact that (as stated in "How to Live") "the natural instinct to defecate, like many other natural instincts, is usually deadened by failure to exercise it. The impulse to defecate, if neglected even five minutes, may disappear." In homes without privies it is often difficult, or even impossible, for the women to have regular times for the important call of nature, especially in winter and in rainy weather. Because of unsuitable conditions, they neglect the impulse, and constant neglect brings the result of chronic constipation and the evils with which it is attended.

It is generally accepted that a sanitary closet is one of the best forms of protection a family can have against the soil pollution diseases; that the installation of such closets reduces the amount of these diseases very materially; and for these reasons a sanitary closet is a great economic investment for any household.

There are 2,900,000 persons constantly sick in this country. This is a loss annually to the Nation of over \$3,000,000,000—enough to build seven Panama Canals a year.



TUBERCULOSIS A COUNTY PROBLEM

Organized County Health Departments With Health Officer, Nurse and County Sanatorium Necessary

Dr. L. B. McBRAYER, Sanatorium

HFEW years ago in cities it was considered necessary to have only a city health officer. Later, as our people began to place a greater value on their lives and their health, the city arrived at the conclusion, and wisely, too, that a health officer alone was not all-sufficient, and proceeded to the organization of a health department, with its laboratory, milk inspectors, meat inspectors, sanitary inspectors, stenographers, and other clerks, nurses, sanitary policemen, and other employees.

At the first meeting of the State Health Officers' Association in Charlotte, June, 1911, more than six years ago, the idea of a whole-time county health officer was advanced and a day or two later was approved by the State Medical Society. By both these organizations a minimum salary of \$2,500 per year was recommended, with certain prerequisites, such as office, telephone, stationery, laboratory supplies and equipment, and in many traveling expenses have been provided for in one way or another. Some wide-awake counties that have also had wide-awake health officers have recognized the value of the work and have paid salaries above the minimum up to \$3,000 and perhaps above, and I have

no fear of successful contradiction when I say that no county has received greater value for its money than it has for that spent in health work.

County Health Department the Need

But this is a progressive age. I believe the people of North Carolina appreciate the value of health work as greatly as any State in the Union, and they realize that one man, be he ever so proficient, cannot do all the work that is needed to be done in a county; and the time has arrived in North Carolina when the counties should have a health department—the health officer at the head, of course—and he, too, should have his clerks, stenographers, nurses, inspectors, etc., etc. The last General Assembly made an appropriation of \$15,000 to further this work, and it is considered a certainty that funds from other sources will be available to supplement this amount. I am not authorized to say so, but any health officer or county who contemplates employing a health officer and is interested in procuring some of this fund, should see the Secretary of the State Board of Health.

When this county health department shall have been organized, and before, tuberculosis will come in for a large share of the work. Our statisticians tell us that one-third of all deaths during the age period from 21 to 35 from preventable diseases are caused from tuberculosis, and 1 out of every 10 of all deaths is caused by tuberculosis. It would seem, then, that any scheme or work for the prevention of disease and death in our State must

concern itself to a considerable extent with this disease.

Handling the Tuberculosis Problem

Then, how should a county handle this problem? First, it should have a whole-time health officer and he should not be required to do clerical work and other things that can be done by a man or woman at a cost of \$50 to \$75 per month. He should offer to the people of his county examinations for tuberculosis without cost to them. When a diagnosis of tuberculosis is made, the case, if able to pay for treatment, should be referred by the health officer to the family physician, who should send the patient to a sanatorium or treat the case at home, as he thinks wise and proper. If not able to pay for treatment, the health officer should arrange for the patient to be sent to the State Sanatorium or sent to the county sanatorium or treat the case at the patient's home, as seems best and possible for the health officer. In either event the public health nurse, who is an important factor in county or city health work, will go to the home of the patient, and, if the patient is removed to a sanatorium, will look after the cleaning and disinfection of the room where the patient has been, and if any other members of the family seem below par, she will see that they are examined, and a few years later, when we have become a little more enlightened, she will see that every member of the family is examined to see whether or not they have tuberculosis, and that this examination is repeated every year or two.

Should the case be treated at home, she will make as many visits as may be necessary, giving the patient such nursing as he may need, and teach the patient how to live so as to get the greatest benefit from his treatment and so as not to communicate the disease to others. She will teach the

other members of the family the hygiene of tuberculosis and the hygiene of life.

County Sanatoria Necessary

To properly care for the people of North Carolina, those who have tuberculosis and those who do not have tuberculosis, it is necessary for the large counties to have a sanatorium or tuberculosis hospital, and it will be necessary for two or more of the smaller counties to combine and have one sanatorium or hospital between them. These must care for both the white and the colored, and will probably care largely for the cases among the negroes and the far advanced cases among the whites who are indigent. The people, as well as the profession, are recognizing the need of these county institutions. The county of Forsyth now has a good one finished and ready for operation. Durham has a hospital for tuberculous negroes, semi-private. Vance County has some tents. Buncombe has a small shack, and others have the matter under consideration. An act was passed by the last General Assembly allowing counties to vote bonds to secure funds for this purpose.

Cases Should be Reported

One other thing is needed: that is, every case of tuberculosis should be reported by the physician in attendance, to the health officer; every case should be visited by the public health nurse and, when necessary, by the health officer, and proper care and supervision should be given.

To recapitulate:

Every county should have a health department, consisting of a whole-time health officer, public health nurses, clerks, and other assistants.

Every person in the county who suspects, or is suspected of having, tuberculosis should have a free examination by the health officer.

Every case of tuberculosis should be reported to the county health officer.

Every case of tuberculosis should have proper treatment (1) in a private sanatorium, (2) in a State sanatorium, (3) in a county sanatorium, (4) in own home by the family physician or a specialist, or (5) in own home by county health officer.

Every patient in the county who has tuberculosis should be carefully supervised by the health officer and the public health nurse.

Or, to express the gist of the whole paper in one sentence: Every person in North Carolina who has tuberculosis has a right to know it, to be properly treated for it, and to be so supervised that they will not communicate it to others.

SYMPTOMS OF TUBERCULOSIS

The important symptoms of pulmonary tuberculosis are cough, expectoration, fever (especially at night), difficulty in breathing, pains in the chest, night sweats, loss of appetite, blood spitting, and loss of flesh. In the matter expectorated it is usually possible to find the tubercle bacilli with the aid of a microscope and certain coloring matters. It appears in the form of a small slender rod.

There are three methods whereby this germ may enter the human system, namely, inhalation, that is, being breathed into the lungs; by ingestion, that is, being eaten with tuberculosis food; and by inoculation, that is, the penetration of tubercular substance through a wound in the skin.

The most frequent method of inoculation with the tubercle bacilli is by inhalation, namely, that arising from the indiscriminate deposit of tuberculous sputum. A patient may expectorate enormous quantities of bacilli. If this expectoration is carelessly de-

posited here and there so that it has an opportunity to dry and become pulverized, the least draught or motion of air may cause it to mingle with the dust and the individual inhaling this dust-laden air is certainly exposed to the danger of becoming tuberculous, if the system is favorable for the growth of the bacilli. The system to be favorable must be in an enfeebled stage either temporarily or permanently. These conditions may be inherited, or acquired through alcoholism or other intemperate habits, through privation or disease.

TUBERCULOSIS A MOST CURABLE DISEASE

If 80 per cent of all people have tuberculosis infection at one time or another and only 12 per cent of people die from tuberculosis, why should not tuberculosis be regarded as one of the most curable of diseases? Why should we still hear of "threatened tuberculosis?" Why should our diagnosis of tuberculosis usually end in the death of the patient? Honest to goodness, isn't "advanced tuberculosis" usually "neglected tuberculosis?" And why wouldn't it help a poor devil to know that he had "tuberculous infection" so that he may avoid the consequences of "neglected tuberculosis," even if he does think he has "bronchitis" or "neurasthenia" or "nervous dyspepsia" or others of these things that really "ain't"?

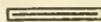
Sickness is an economic calamity for which the members of the community are responsible in varying degrees, and for which the whole community pays. The greatest economic asset that a workman possesses is the health that enables him to go to work each day. If he loses that, he loses his power of earning his living.

NOTICE!

New State Law, Operative August 1st
Requires

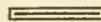
Parents to Report Measles and Whooping Cough

Neglect to do so subjects to heavy fine



TO EVERY RESPONSIBLE CITIZEN:

Help Your State Enforce this Law and
Your State Will Protect Your Community



SAVE THE BABIES

Measles and Whooping Cough

Kill One Out of Four Baby Victims

See Page 105

R. H. B.

NOTICE TO READER.—When you finish reading this magazine place a one-cent stamp on this notice, hand same to any postal employee and it will be placed in the hands of our soldiers or sailors at the front. NO WRAPPING—NO ADDRESS.



The

The Health Bulletin

Published by THE NORTH CAROLINA STATE BOARD OF HEALTH

This Bulletin will be sent free to any citizen of the State upon request.

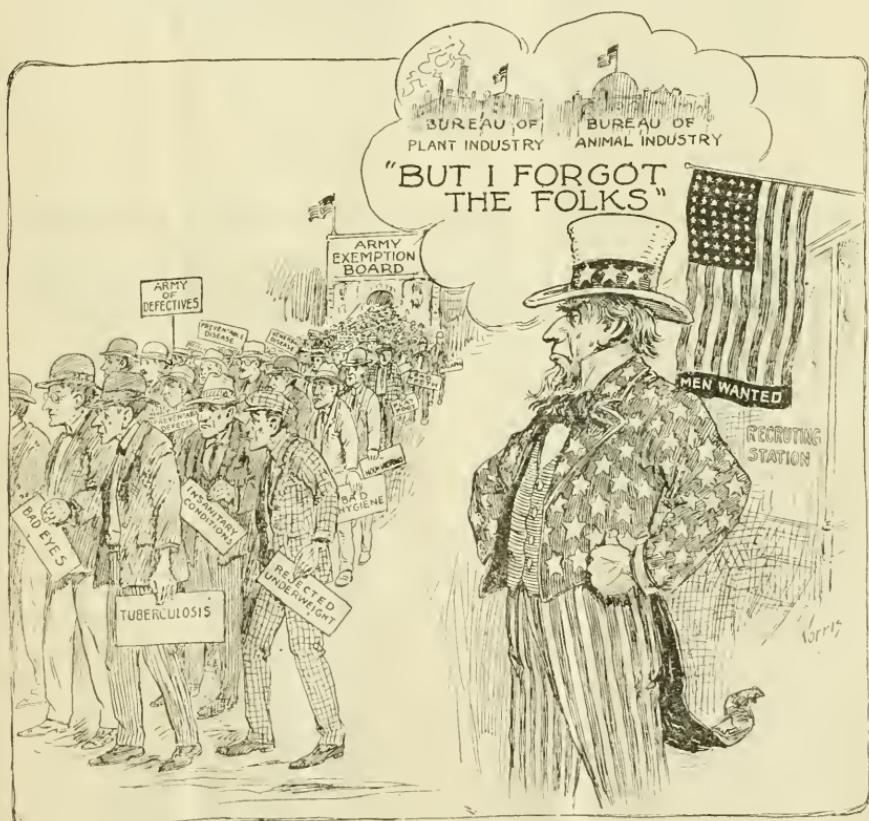
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AUGUST, 1917

No. 5



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FREE PUBLIC HEALTH LITERATURE

The State Board of Health has a limited quantity of health literature on the subjects listed below, which will be sent out, free of charge, to any citizen of the State as long as the supply lasts. If you care for any of this literature, or want some sent to a friend, just write to the State Board of Health, at Raleigh. A postcard will bring it by return mail.

No. 12. Residential Sewage Disposal Plants.	No. 107. Life Saving Facts About Diphtheria.
No. 50. Baby Leaflet.	No. 116. Scarlet Fever.
No. 52. Malaria and What Everybody Should Know About It.	No. 117. Tuberculosis.
No. 53. Disinfection After Diphtheria, Measles, or Whooping Cough.	No. 118. Measles.
No. 54. Disinfection After Scarlet Fever. Sanitary and Hygienic Care of Prisoners.	No. 119. Whooping Cough.
No. 60. Cancer Leaflet.	No. 120. Hookworm Disease.
No. 67 Adenoids.	No. 121. Sanitary Management of Hotels.
No. 71. About Your Eyes.	No. 122. Poliomyelitis or Infantile Paralysis.
No. 72. Smallpox.	No. 123. Typhoid Fever.
No. 75. Baby Welfare.	No. 126. Indigestion.
No. 76. Save the Baby.	Teeth, Tonsils, and Adenoids.* How to Live Long.* A War on Consumption.* Milk.* Periodic Medical Examination.
No. 79. Hygiene at Middle Life.	Typhoid Fever and How to Prevent It.*
No. 80. Prevention of Degenerative Dis- eases.	Concrete Septic Tanks† Anti-Spitting Placards (5 inches by 7 inches).
No. 81. The Prevention of Colds.	Anti-Fly Placards (14 inches by 22 inches).
No. 85. Constipation.	Anti-Typhoid Placards (14 inches by 22 inches).
No. 86. Venereal Diseases.	Anti-Tuberculosis Placards (14 inches by 22 inches).
No. 87. Sanitary Privies.	Clean Up Placards (14 in. by 23 in.)
No. 88. Public Health Laws.	
No. 89. The Common House Fly.	
No. 90. Typhoid Fever.	
No. 91. Tuberculosis Laws.	
No. 95. Important Facts About Tubercu- losis.	
No. 96. The Baby.	
No. 98. The Teeth.	

*Furnished by courtesy of the Metropolitan Life Insurance Company.

†Furnished by courtesy of Portland Cement Association.

THE Health Bulletin



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EDITORIAL

BETTER BABIES CONTEST GROWING

Gets New Quarters and Extends Its Service to Four-Year-Old Children

BETTER Babies Contest has become an established feature of the annual State Fair. In recognition of what this movement has meant to the young life of the State in particular, and to the people in general, from a health and educational point of view, since it was organized five years ago, the Fair Association has provided permanent quarters for the Contest, that its work may continue to grow and become even a more vital force in the life of the people.

The annex of the new Woman's Building, the new quarters of the better babies, has been constructed and equipped with an eye to every need of the babies and their mothers while attending the Contest. An apartment of seven rooms has been specifically arranged and fitted up for the different features of the work. There is a rest room for the mothers, a dressing room for the babies, a lavatory, and a room for each of the specialists, the dentist, the eye, ear, nose and throat specialist, and the physician weighing and measuring the babies. One room will also be given over to a trained nurse, who will lecture and demon-

strate to mothers concerning the needs of their babies. Demonstrations in preparing food, bathing and dressing the baby will be given. What is good and bad for the baby in the way of foods, clothes, and playthings will be exhibited.

Because mothers have recently become interested in knowing whether their children have ugly and dangerous defects like adenoids, decayed teeth, diseased gums, diseased tonsils and ears, and because they want to know this early so as to have the defects remedied before they get in their ugly work, those in charge of the Better Babies Contest this year have decided to admit children four years old and under. It is hoped that by next year arrangements can be made to offer this service to five-year-old children, after which time they will, if they are fortunate enough to live in a county that has provided for medical school inspection, get this service in school.

The Contest this year will again be under the management of the Health Department of the Woman's Club of Raleigh, with Mrs. W. A. Withers as chairman. The same rules and regulations as have governed the Contest in previous years will be used this year. In addition to the usual number of prizes offered, the Fair Association is offering ten dollars in gold to the child who shows by his scores to

have made the greatest improvement since last year.

The date of the Contest this year is October 16-19. Miss Mae Reynolds, of the State Board of Health, secretary of the Contest, requests parents making application for their baby to give the baby's name in full, its age in months at the time of the Contest, and to state on which day they will attend the Fair.

WEEDS AND SCHOOL CHILDREN

The farmer who gets a good crop of corn or cotton is usually found to be the farmer who gives some personal thought and attention to his corn and cotton. He cultivates it at the right time and in the right way; he keeps it from being strangled by weeds and robbed of the nourishment that rightfully belongs to it. His good crops are not a matter of luck, accident, or legerdemain. They are the natural, logical result of what Nature can and will do with just a little intelligent co-operation on our part.

In these respects children, our school boys and girls, are like our corn and cotton. If we allow them to be handicapped in their physical and mental growth and robbed of their rightful nourishment by the weeds of hookworms, malaria, adenoids, bad teeth, bad eyes, and other easily preventable and easily remedied physical defects, we may confidently expect a second-rate crop of men and women. This policy in the past accounts for the disgraceful showing so many of our young men are making at their physical examinations for military service.

Careful studies in various schools have shown that about two children out of three have defective teeth; one out of fourteen defective vision; one

out of seventeen enlarged tonsils; and one out of twenty adenoid growths. These physical defects are usually entirely unsuspected by either the children or their parents. Yet they are hampering the children in their school life and causing a wastage of a considerable part of the money put into their education. One child cannot see the blackboard clearly and has a headache when he studies. A pair of glasses would clear up the whole trouble. Another child is dull and listless, does not sleep well, and has no appetite for his meals. The removal of adenoid growths would cure him immediately. Isn't it about time we take this matter seriously in hand and give our school children a bit of the attention which is rightfully theirs, correct some of these defects and start them along life's journey unhampered by such inexcusable physical handicaps?

WHY A BIRTH CERTIFICATE?

1. To establish identity.
2. To prove legitimacy.
3. To show when the child has the right to enter school.
4. To show when the child has the right to seek employment under the child labor law.
5. To establish the right to inheritance to property.
6. To establish liability to road and military duty, as well as exemption therefrom.
7. To establish the right to vote.
8. To qualify, to hold title to and to buy or sell real estate.
9. To establish the right to hold public office.
10. To prove the age at which the marriage contract may be entered into.
11. To comply with the law of the State of North Carolina.



PUBLIC HEALTH AND SANITATION



SAVING LIFE WHEN IT IS MOST VALUABLE

Methods of Conducting Life Extension Work in North Carolina

Ω ANY intelligent and well advised individuals are now consulting their family physicians, annually or semi-annually, for a thorough physical overhauling and for advice in matters of diet and living habits. They have adopted the "wisest idea that China has furnished to the world—that of employing the doctor to keep the patient well." They know of a truth that the prevention of disease is a wiser, safer policy than the cure.

North Carolina is the first State in the Union to adopt and work out a system whereby this policy of preventing disease by means of an early physical examination may be brought to her people free of all cost. This has been done by the State Board of Health contracting with county authorities to make a physical examination of all white adults between the ages of 25 and 65 years who desire such an examination, for the purpose of finding and pointing out to them any incipient and remedial defects and of impressing those who are found to have such defects with the importance of their treatment. Those found to be seriously impaired, which are about 60 per cent of those examined, are referred to physicians for treatment.

Detailed methods of conducting life extension campaigns in North Carolina, including some of the results obtained, are here given by Dr. A. J.

Ellington, director of the Life Extension work for the State Board of Health. The present methods of work he gives as follows:

1. A contract with the county commissioners is secured for two to four months' work.

2. A week is spent in preliminary advertising, during which time the local papers publish notices of the free medical examination. Handbills are distributed. Circular letters giving full explanation of the work, and also inclosing application cards, are mailed to all persons between 25 and 65 years of age. A series of illustrated lectures are given in the larger towns and communities.

After the preliminary advertising is over, an office is opened in one or more of the larger towns in the county. The first person to apply gets the first examination. All engagements for the examinations are made in advance, so that there is no waiting or congestion in the office. A history blank is furnished each applicant, and it must be brought in filled out at the time reserved for his examination. This blank gives an insight into the life and physical status of the patient.

A thorough physical examination is made, including vision, hearing, nose, throat, teeth and gums. The heart, blood vessels, lungs, abdomen, and genitalia are then examined. A search is made for incipient tuberculosis and the early signs of cancer as well as for signs of changes in the heart, arteries, and kidneys. A blood pressure test is made on each subject, and also an examination of the urine. A chart, given to each person, contains

a report of the examination, advice upon diet and living habits, and, if found necessary, an urgent plea for the patient to consult his physician and take steps to remedy any minor ailment before it is too late. All data is kept strictly confidential, and where medical attention is required the patient must choose his own physician. Printed leaflets upon the following subjects are distributed, as indicated by the condition found:

Overweight,
Underweight,
Care of the Mouth and Teeth,
Constipation,
Indigestion,
Prevention of Colds,
Cancer,
Tuberculosis,
Hygiene at Middle Life.
Prevention of Degenerative Diseases.

These "Keep-Well Leaflets" add greatly to the educational value of the work. Twenty to thirty minutes are required for the examination of each person. An average of fifteen examinations are made in a day.

The first campaign of Life Extension work was conducted in Vance County. During six weeks about four hundred persons were examined, one-third of whom were women. Ninety-eight per cent were found physically imperfect; 57 per cent were in actual need of medical attention and were referred to physicians for treatment; 33 per cent were unaware of any impairment, and some of these were carrying blood pressures of over 200, while a number showed signs of active tuberculosis and were still unaware of their condition.

The most interesting and at the same time astonishing discovery was the high percentage of infected gums. Actual pus was oozing from many

gums and no steps had been taken to relieve the condition. Already symptoms or signs of rheumatism, goiter, heart or kidney disease had in many instances set in. These facts are especially interesting after reading the work of Billings and Roseneau. Both of these investigators emphasize the importance of focal infection in the causation of systemic disease, particularly of the chronic type.

There are three possible methods for conducting Life Extension work in North Carolina:

1. The method of using the county as a basis for the work, as above outlined.
2. In counties employing full-time health officers this feature of public health work may be included among the regular duties of the officer.
3. Industrial plants may employ physicians to periodically examine the entire force of workers, just as is now being done in New York and other large cities.

The cost of Life Extension work as planned by the State Board of Health is about \$200 a month. An average of 15 examinations can be made each day, or approximately 350 a month. From these figures the cost per capita is about 60 cents.

SOME COMMUNITY MEASUREMENTS

Dyspepsia. The amount of dyspepsia in any community is in direct proportion to the hasty eating of improperly cooked foods by the average citizen.

Diphtheria. The mortality from diphtheria in any community is in direct proportion to the failures to early administer antitoxin by the average citizen.

Syphilis. The amount of syphilis in any community is in direct proportion

to the amount of illicit commerce by the average citizen.

Gonorrhea. The amount of gonorrhea in any community is in direct proportion to the amount of wild oats sowed by the average citizen.

Insanity. The amount of insanity in any community is in direct proportion to the amount of syphilis and alcoholism of the average citizen.

Bad Breath. The amount of bad breath in any community is in direct proportion to the decayed teeth and intestinal indigestion of the average citizen.

Typhoid. The amount of typhoid fever in any community is in direct proportion to the quantity of human excrement consumed by the average citizen.

Tuberculosis. The amount of tuberculosis in any community is in direct proportion to the quantity of foul air consumed by the average citizen.

Infantile Mortality. The amount of cholera infantum and infantile diarrhea in any community is in direct proportion to the amount of food poisons consumed by the average infant.

Smallpox. The amount of smallpox in any community is in direct proportion to the neglect of the average citizen to be successfully vaccinated.

Arteriosclerosis. The amount of arteriosclerosis in any community is in direct proportion to the amount of autointoxication acquired by the average citizen.

Colds. The prevalence of colds in any community is in direct proportion to the number of persons who permit other persons to cough and sneeze in their faces in unventilated rooms.

Hookworms. The amount of hookworm disease in any community is in direct proportion to the number of people in that community who are not sufficiently civilized to use sanitary privies.—Indiana Health Bulletin.

TYPHOID FEVER IS PREVENTABLE

Three hundred thousand persons incapacitated, and from twenty to twenty-five thousand lives lost—this is the heavy toll exacted in the United States each year by the scourge of typhoid fever. And typhoid fever is a preventable disease!

A recent bulletin of the United States Public Health Service entitled "Typhoid Fever—Its Causation and Prevention," states that within the past ten years few of our communities having as many as 2,000 persons have remained free from this disease for any period of twelve consecutive months. In recent times the rate of its prevalence for the United States as a whole has been from two to five times as high as in some of the countries of Europe. In these European countries the typhoid rate was formerly higher than the present figures for the United States. Their great reductions in the ravages of the disease have been brought about by improvements in sanitary conditions.

In many American cities there has occurred within the last twenty years a considerable reduction of typhoid fever. This was due in a large part to improved sanitary conditions in the cities. The typhoid rate for some entire states has shown a material decrease. In North Carolina the typhoid death rate per 100,000 population has decreased from 35.9 in 1914 to 29.1 in 1916. For the country as a whole, according to available figures, the rate has been reduced about 50 per cent in the past 40 years. But the present rate is about the same as that which prevailed in some of the other advanced nations of the world 30 years ago. In other words, the United States is a generation behind the times in respect to the reduction of its typhoid rate.

Practical and efficient measures for

the prevention of typhoid fever are definitely known, but the efforts to get the people of the average self-governing community to carry out these measures to a reasonable extent are oftentimes decidedly experimental in character. In many instances the cost of modern sanitary improvements has been an obstacle in the way of typhoid prevention. It is often difficult to convince the governing authorities that money expended in the protection of the public health yields large dividends.

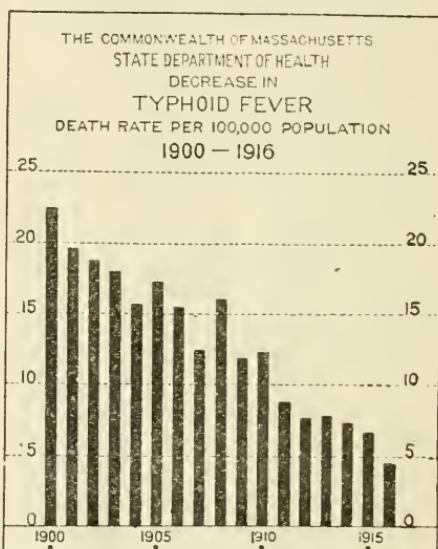
In rural communities and small municipalities another factor—the instruction and coöperation of the individual property owner—enters into the problem. Here every home must have its own method of sewage disposal, and in most cases its own water supply. The Public Health Service bulletin above referred to deals in a comprehensive way with the construction of wells and outhouses.

In recent years a specific method for increasing individual resistance to typhoid germs has been employed. This is known as anti-typhoid inoculation or "vaccination." This method has been used extensively in military organizations of the United States, and from the results obtained it appears that inoculated persons are, upon equal exposure to typhoid infection, much less likely to develop the disease than those who have not been inoculated and who have previously had the disease. The average duration of protection given by inoculation has not been determined, but is supposed to be at least three years.

It is pointed out, however, that the protection given by anti-typhoid inoculation is relative, not absolute, and that such inoculation is not to be regarded as a substitute for sanitation.

TYPHOID IS DECREASING

Typhoid fever is a preventable disease. Here is a splendid record of the achievement of one State in reducing her typhoid death rate. We in North Carolina have not awakened to the importance of preventing typhoid quite as soon as the people of Massachusetts. Indeed, we did not even begin to keep vital statistics until 1914. Since that date, however, we



have been making rapid strides in the right direction; but we have much more to do. Our typhoid death rate in 1914 was 50.0 per 100,000 population; in 1915 it was 40.0, and in 1916 it was 30.0. A few more years of strenuous effort along this line will place us in a class with Massachusetts and other progressive States with low typhoid rates.

" 'Tis a wise community which places community health above all other community possessions."



CHILD HYGIENE

MOTHER'S FINGER FIRST TOOTH BRUSH

Children Should Be Taught Early to Care for Their Health

UNTIL the child is old enough to use a toothbrush himself, the mother should wash his teeth every day; but as early as possible the child should learn to care for his own teeth. Children should be taught that it is of special importance to wash the teeth and mouth after eating nuts, or any sweet, sticky, or pasty food. The teeth should be carefully cleaned at bedtime, since the fermentation of food particles left in the mouth, which leads to the decay of the teeth, proceeds more rapidly at night, when the mouth is still.

The child should be taught to brush the teeth from the gum downward or upward toward the cutting edge. When the teeth are brushed crosswise, the tendency is to brush whatever is on them into the cracks and crevices of the teeth or under the edges of the gums. The inner surface of the teeth should also be brushed up and down, and the grinding surfaces should be scrubbed in all directions; after the scrubbing is finished the mouth should be thoroughly rinsed with warm water.

Some hard food like a stalk of celery or part of a ripe juicy apple eaten at the end of a meal scours the surface of the teeth and leaves a fresh, clean taste in the mouth.

Children should be taken regularly to a good dentist once or twice a year

after the first set of teeth is complete. If cavities appear, they should be filled with soft fillings, and each tooth should be saved as long as possible. If the temporary molars are extracted before the sixth-year molars come in, the latter will be apt to crowd forward into the space left vacant, and when the later teeth come they will be pushed out of their regular places, destroying the natural line of the mouth. The first molars furnish the grinding surfaces necessary to proper chewing of the food. If they fall out too soon the child is hardly able to chew hard or tough food, and is likely to swallow such food in chunks.

The care of the child's first teeth is important also because the health of the permanent set is largely dependent upon that of the first set. The second teeth are much larger than the first and consequently need more room in the gum. For necessary development the jaws must be given plenty of exercise. Consequently the child should have a mixed diet, including some hard food which he cannot swallow without chewing. Toast, crusts, hard crackers, certain fruits, like apples, salad, vegetables, and meats, should provide the food elements needed for healthy teeth if the child is thriving.

HER BABY DIED

The hour for the funeral had arrived and neighbors were coming in to the services. The dead baby lay in a little white coffin lined with white satin, was dressed in white, and flowers in pro-

fusion decorated the room that testified to the sympathy of the neighbors.

The preacher made a short prayer, uttered a few comforting words, a song was sung, the baby was borne to the white hearse by four young girls in white, and the procession moved towards the cemetery.

The baby has died from intestinal disorder induced by wrong feeding, yet the preacher has said: "The Lord giveth and the Lord has taken away." The doctor told how it all happened. "That baby," said he, "was born strong and healthy. The mother nursed it for weeks, but finding that nursing interfered with other affairs, provided a bottle, and when she was absent her aunt, who lived with her, fed the baby cow's milk. This irregularity of breast feeding soon lessened the amount of the mother's milk and she concluded she would cease nursing entirely. The child seemed to do well on the bottle for a while, but it soon became evident that something was wrong. One time I saw the mother give a piece of rich pie crust to her baby, and I warned her against doing so. She told me that she found the infant liked coffee, and a little was frequently given it. And so despite my medicine and my warning in regard to feeding, the child's digestive apparatus gradually broke down. An old grandmother told the mother that it was natural for babies to "throw up." Another prescribed soothing syrup which contained morphine. Another one recommended anise seed cordial, and so it went; the young mother being willing to depend upon drugs and remedies, but not to practice prevention by feeding rationally. When the digestive machinery was put to the bad the baby finally took dysentery and died." Continuing, the doctor pneumonia last winter, simply because said: "I had three infants die of

the mother would not give them air enough. In spite of my instructions that plenty of air made babies strong and protected them against colds and coughs, still they would cover their babies' faces with veils and napkins, keeping the life-giving air away. The foolish idea," said the doctor, "which seems to exist everywhere, that fresh, cold air is injurious, must be somehow extracted from the minds which hold the same or else pneumonia-dead babies will always be with us."

INFANTILE PARALYSIS

Dr. Simon Flexner, in his recent address before the New York Academy of Medicine on The Nature, Manner of Conveyance and Means of Prevention of Infantile Paralysis, reaches the following conclusions:

1. This is an infectious and communicable disease which is transmitted by diseased and healthy individuals. The virus leaves the body in the discharges of the nose, the throat, and the intestinal tract.
2. The disease attacks, by preference, young children and infants, and in caring for them the hands and clothes of adults may become contaminated. The adults may, in turn, infect other children. Cleanliness is, therefore, the most important prophylactic measure.
3. The secretions of the nose and mouth are disseminated by kissing, coughing, and sneezing. Precautionary measures should be instituted to control these causes so far as possible.
4. Flies, which collect about the nose and mouth of the infantile paralysis patients and even feed upon the intestinal discharges, carry the disease to unprotected food and to homes not protected by screens. Sick chil-

dren should also be protected against the flies.

5. The early detection and isolation of the cases of infantile paralysis in all its forms and the control of the households from which they come, will necessarily have to be the chief measure in staying the progress of the epidemic.

6. The degree of the susceptibility of children to this disease is less than to the other infectious diseases, as measles, scarlet fever and diphtheria.

7. The average death rate in many epidemics has been less than 10 per cent.

8. A larger number of patients than usually supposed recover completely. The paralysis may take as long as several months, and in some instances even years, to clear up. A very small number remain hopelessly crippled.

9. There is no preventive inoculation or vaccination. Recovery is accomplished by a process of immunization which takes place during the acute period of the disease.

PARENTS TO BLAME FOR CHILDREN'S BAD TEETH

A recent investigation made by the U. S. Public Health Service in connection with studies of rural school children showed that 49.3 per cent had defective teeth, 21.1 per cent had two or more missing teeth, and only 16.9 per cent had had dental attention. Over 14 per cent never used a tooth brush, 58.2 per cent used one occasionally and only 27.4 per cent used one daily. Defective teeth reduce physical efficiency. Dirty, suppurating, snaggle-toothed mouths are responsible for many cases of heart disease, rheumatism, and other chronic affections. The children are not responsible for the neglected state of their teeth.

The ignorant and careless parent is to blame for this condition—a condition which hampers mental and physical growth and puts a permanent handicap on our future citizens. School teachers can and are doing much in inculcating habits of personal cleanliness on the rural school child but this will fail of the highest accomplishment unless parents co-operate heartily and continuously. This is a duty which we owe our children.

ONLY ONE WAY TO GET TYPHOID —EAT IT

It should be borne in mind that typhoid fever is a disease which is received through one route only—that is, through the mouth. Typhoid is a disease peculiar to man. It does not occur in the lower animals. It is caused by a minute vegetable organism known as the typhoid bacillus. This bacillus leaves the bodies of the infected persons in their excretions, and is taken into the bodies of well persons in polluted water and infected food. Sometimes persons who have had the disease continue to excrete the bacilli for a considerable period of time after recovery. These are known as chronic carriers, and may, for example, as in the case of the famous cook, "Typhoid Mary," infect the food supplies, and cause epidemics of typhoid. Flies, by reason of their filthy habits, are great distributors of the germs of typhoid fever. They act usually by infecting foodstuffs.

"The physical condition of the child during his school life is the prime consideration, for without health all else is of no avail."

PERSONAL HYGIENE



FIFTEEN RULES OF RIGHT LIVING FOR COUNTRY PEOPLE

**Prof. Irving Fisher Says Only One
Per Cent of People Really Live—
Lack of Hygiene the Cause**

WHILE immense progress has been made in the cities in the direction of ridding ourselves of germ diseases and otherwise improving health conditions, the same progress has not been made in the country. Besides, defending ourselves from germs is only about half of the health question. There are those diseases that come from wearing out or from constant abusing of the vital organs, such as Bright's disease, heart disease, apoplexy, and nervous breakdowns. Even the death rate from these diseases are higher in the country than in cities.

Prof. Irving Fisher of Yale University has recently made a study of rural health and national well-being, and finds that only something like 1 per cent of people are really well and free from impairment. The remaining 99 per cent are only half living and half working, he says; therefore, they are getting only half of the joy out of life and only half of the results of their labors. Professor Fisher is convinced that the chief cause of this degeneration is the neglect of individual hygiene, and that the cure for it is more individual hygiene, more

and better habits of daily living. Accordingly, he has prepared, particularly for country people, fifteen rules of hygienic living which embrace the fundamentals or the whole story of a well ordered, healthful life. The Bulletin recommends these rules to its readers, with the suggestion that they be read and reread till they become firmly fixed in mind and habit. The rules are as follows:

AIR—RULE 1

Ventilate Every Room You Occupy

All windows throughout the house should be opened every day. The air in the house should be kept as pure as the air outdoors. Country people who are used to outdoor air so much of the time should be sure to have it when within. Fresh air should be flowing into a room whenever occupied. A cynical jester tells us that the reason outdoor air in the country is so pure is that the farmers keep their windows shut! Windows should be opened alternately at the top and the bottom so there will be a circulation of air. A board may be placed in front of the open window to send the air upward and prevent a direct draft. The best temperature is between sixty-eight degrees and seventy degrees Fahrenheit, but there is, apparently an advantage in letting it vary somewhat.

The more sunshine streaming into a house the better. Sunshine and fresh air kill germs and thereby help to keep out sickness.

AIR—RULE 2**Wear Light, Loose Clothes**

The skin should be kept clean and warm and should have air. The clothes should not be tight. Porous cloth should be worn, i. e., so loosely woven that air can be blown through it. Tight hats are conducive to baldness.

AIR—RULE 3**Spend Time in the Open Air in Winter as Well as in Summer**

Fresh air is just as necessary in the winter as in the summer. Even if the outdoor air is cold, damp or foggy, it is generally healthier than indoor air. Exercise should not be unduly reduced in the winter because there is not so much to be done. A great reduction of exercise in the winter is dangerous for the farmer who works hard in the summer, in the same way that it is dangerous for an athlete to suddenly give up his training.

AIR—RULE 4**Have Lots of Fresh Air Where You Sleep, or Sleep Out if You Can**

Country people have an especially good chance to sleep out or at least to have good fresh air in their bedrooms. A third of one's time is spent in bed, and during this period one should have plenty of fresh air. If sleeping inside, all the windows in the bedroom should be wide open. Night air is not injurious, it is beneficial. Fresh air at night produces a rested and energetic feeling in the morning. If sleeping out-of-doors, plenty of nightclothes and bedclothes must be used. If there are mosquitoes or flies, a piece of light mosquito-netting can be hung over the bed.

AIR—RULE 5**Breathe Deeply**

Breathing should be deep, slow, regular and through the nose, not

through the mouth. If occasional deep breathing is not practiced, part of the lungs may become useless. By deep breathing, more air is inhaled each time, and, therefore, more "oxygen" secured for the blood. Rapid breathing, however, is harmful.

FOOD—RULE 6**Avoid Eating Too Much**

Heavy meals should be avoided just before heavy work or when very tired or overheated. It is then sometimes better to skip a meal or to eat only fruits and salads. If overheated, foods should be eaten which are filling but which do not make much heat. The names of some of these foods are given under Rule 8. Eat a little less food in hot weather, as food is heat-producing. Hard exercise of course necessitates more food, as it uses up more heat. It is better not to eat between meals. Overeating in order to gain weight is not advisable. Weight may be gained by sleeping as well as by eating.

FOOD—RULE 7**Do Not Eat Much Meat and Eggs**

Foods are of two kinds—repair food and fuel food. The repair foods are called "proteins." The fuel foods are called "carbohydrates" and "fats." A certain amount of "protein," or repair food, must be eaten each day to replace those parts of the body which are being worn out. If more "protein," or repair food, is taken than we really need, the surplus food decays in the bowels and makes poisons. The liver and kidneys are then overworked because it is their function to rid the body of these poisons. The two protein foods most commonly used are meat and eggs. If very much meat and eggs are eaten the body receives more "protein" than it needs. Poison results. The farmer should especially

beware of living much on salt meats in the winter when his exercise is usually reduced.

FOOD—RULE 8

Eat Various Kinds of Food

Most people eat too much soft food. Hard foods, like crusts, toast, hard fruits, and nuts, which require chewing, are beneficial. They exercise the teeth and keep them from decaying. The size and weight of the food have little to do with the work it does in the body. A little pat of butter, weighing half an ounce, holds as much food as a pound and a half of watermelon. Concentrated foods must be eaten, of course, but the danger with most people is that they eat too much of such foods and not enough of the bulky or filling foods, such as lettuce, cucumbers, celery, spinach, asparagus, cabbage, cauliflower, beets, onions, carrots, parsnips, squash, pumpkins, tomatoes and other garden vegetables. Some raw foods, such as fruits and salads, should be eaten each day, as raw foods contain certain beneficial elements which are often lost in cooking. Some foods, such as potatoes and fish, should not be eaten raw.

FOOD—RULE 9

Eat Slowly

Food should be well chewed. If swallowed half-chewed the stomach has more than its share to do. If it is necessary to force the food down, you have not chewed it enough. Liquids should not be used to wash down food but should be sipped slowly. Some of the most wholesome foods are fruits, boiled milk, sour milk, potatoes, bread, vegetables, and nuts, if they are well chewed. It is best not to use pepper, mustard, catsup, or other "hot" relishes at all.

HABITS—RULE 10

Have Your Bowels Move at Least Once Each Day

Good food should be eaten but the residue in the bowels must be disposed of. When the bowels move without effort it is easy to keep well. If possible the habit of moving the bowels thoroughly twice a day—after breakfast and after supper, should be established. Headache is often caused by sluggish bowels. Food is the natural laxative. Often the bowels do not move because not enough bulky food has been eaten. A few especially laxative foods are figs, fruits, bran, oil, vegetables, butter, cream, sugar, honey, syrups, and juices of fruits. Water drinking, especially before breakfast, is conducive to free movement. Drug laxatives should be used only upon the advice of a physician.

HABITS—RULE 11

Stand, Sit, and Walk Erect

The proper position in both standing and sitting is chest up and arched forward, shoulders back, stomach in. One of the common causes of constipation and nervousness is a slouching position. Walk and stand with heels apart and toes straight forward. "Toeing out" leads to weak feet and flat foot.

HABITS—RULE 12

Avoid Poisonous Drugs

Some of the most common of habit-forming drugs are cocaine, heroin, alcohol, opium, and acetanilid. They are poison and should be carefully avoided. Many patent medicines contain such drugs and are consequently very dangerous. It is a mistake to think that the drinking of beer, ale and other liquors gives strength. These drugs only deaden the tired feeling and do not really destroy it. One is

more tired after drinking alcohol and less able to ward off illness than before. Smoking is injurious. Athletes find it makes them short of "wind" and it dulls the brain. Tea and coffee, while more mildly harmful, are still not desirable, and an ideal hygienic diet does not contain them.

HABITS—RULE 13

Keep Clean and Avoid Contagious Diseases

The daily bath is desirable. The hands should be washed before eating. If any part of your body is scratched or injured, the injured place needs special care as to cleanliness. Some of the poisons of the body are thrown off by perspiration. After sweating, bathing is necessary to remove these poisons from the skin.

Water should be boiled before drinking if its purity has not been established. Water may contain typhoid and other disease germs. The common housefly sometimes carries typhoid fever germs. The mosquito often carries malaria and yellow fever germs. Mosquitoes and flies should be kept out of the house and away from food. The best way to avoid such diseases is to destroy breeding places of these insects. Mosquitoes breed in stagnant water. Flies breed in decaying matter, especially horse manure. Tuberculosis is spread by spitting on the floor or ground. The sputum dries like powder and goes into the air as dust. It is then breathed into the lungs. Drinking cups or towels should not be used in common. Many diseases are carried in this way.

Decayed teeth produce poisons in the body. Teeth, tongue and gums should be thoroughly cleaned each night and morning by brushing with a tooth-brush. Move the brush up and down, not across the teeth. If

possible the teeth should be cleaned after each meal. Fruit, especially apples, after a meal are good mouth and tooth cleaners.

ACTIVITY—RULE 14

Work Hard, but Play, Sleep and Rest, Too

"All work and no play makes Jack a dull boy." To be healthy and happy we must all work, but we should also rest and play. Those who do hard physical work all day should play simple games, like checkers or cards, to work their minds. This will allow tired muscles to rest. Reading good newspapers and books and telling jokes and stories are relaxing pleasures which most all have within their reach. Laughter is very healthful. Worries should never be taken to bed. If sleep escapes you, deep and slow breathing will often produce the desired effect. If still sleep cannot be secured, a lukewarm bath, or a glass of warm milk, will usually make one sleepy. When one comes in tired out, if he can lie down for a few minutes or better still sleep a short time, especially before eating, he will be greatly refreshed. Eating and excitement should be avoided at bedtime.

ACTIVITY—RULE 15

Be Cheerful and Learn Not to Worry

The mind and the body work together. The mind has a strong effect on the health of the body. A fit of anger, or a spell of worry, or envy, or hate, or jealousy may make one more tired than a hard day's work. It should be everyone's effort to replace the thoughts that make unhappy by thoughts that make happy. Forget your worries. The secret of life and of happiness seems to be in taking one's life and work cheerfully. Almost any one can assume this attitude if the proper desire is present.

HAVE YOU BEEN EXAMINED YET?

A railway engineer oils the bearings of his locomotive and looks over the machinery to see that everything is all right before he starts on a run. The owner of a fine automobile looks over his machine to see that everything is

ing man, the man with foresight, will go to his physician and have the mechanism of his body looked over once or twice a year to see that all parts are in working order. If all persons would pursue this course, various ailments would be discovered early and remedial measures taken



A WISE MAN

in running order, tires inflated, tanks filled, and the mechanism perfect before he takes the wheel and throws in the clutch. The man responsible for the running of any kind of delicate or fine machinery is constantly on the watch to see that nothing gets out of order.

The human body is a more finely adjusted and delicately balanced mechanism than is either the automobile or locomotive. Disorders and diseases of adult life, which, if neglected, lead to disaster, often come on so insidiously that they are not detected in the beginning without an expert examination. The wise man, the think-

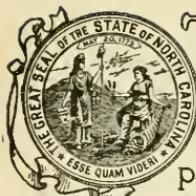
that would substantially increase the average span of life.—New Jersey Public Health News.

EAT MORE VEGETABLES

Succulent vegetables of all sorts contribute bulk to the diet, and so are valuable from the standpoint of hygiene, because within limits bulkiness is a favorable condition for normal digestion and also of importance in overcoming a tendency to constipation. They are also among the important sources of necessary mineral matters in the ordinary diet.

WASHINGTON, D. C.

NOTICE TO READER.—When you finish reading this magazine place a one-cent stamp on this notice, hand same to any postal employee and it will be placed in the hands of our soldiers or sailors at the front. NO WRAPPING—NO ADDRESS.



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SEPTEMBER, 1917

No. 6

ENEMIES OF LITTLE CHILDREN



THE DOCTOR WHO DOES NOT REPORT CONTAGIOUS DISEASES



THE MOTHER WHO VIOLATES QUARANTINE



THE IGNORANT MOTHER WHO NEEDLESSLY EXPOSES HER CHILD



THE QUARANTINE OFFICER WHO NEGLECTS HIS DUTY

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FREE PUBLIC HEALTH LITERATURE

The State Board of Health has a limited quantity of health literature on the subjects listed below, which will be sent out, free of charge, to any citizen of the State as long as the supply lasts. If you care for any of this literature, or want some sent to a friend, just write to the State Board of Health, at Raleigh. A postcard will bring it by return mail.

No. 12. Residential Sewage Disposal Plants.	No. 107. Life Saving Facts About Diphtheria.
No. 50. Baby Leaflet.	No. 116. Scarlet Fever.
No. 52. Malaria and What Everybody Should Know About It.	No. 117. Tuberculosis.
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No. 85. Constipation.	Typhoid Fever and How to Prevent It.*
No. 86. Venereal Diseases.	Concrete Septic Tanks†
No. 87. Sanitary Privies.	Anti-Spitting Placards (5 inches by 7 inches).
No. 88. Public Health Laws.	Anti-Fly Placards (14 inches by 22 inches).
No. 89. The Common House Fly.	Anti-Typhoid Placards (14 inches by 22 inches).
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No. 96. The Baby.	
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THE Health Bulletin



PUBLISHED BY THE NORTH CAROLINA STATE BOARD OF HEALTH

Vol. XXXII

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No. 6

EDITORIAL

Do you know the name and address of your county quarantine officer and the diseases that you are required by law to report to him?

Don't send your child to school with a cold or sore throat. The most dangerous diseases, like scarlet fever, diphtheria, whooping cough, and measles, begin with a slight cold or a sore throat.

Health officers don't issue quarantine cards for fun. They don't keep people at home when it is unnecessary. They are officers of the law and know what they are doing. All law-abiding citizens will coöperate with the health officer in controlling contagious diseases.

Don't think it is a joke on the quarantine officer that the card on the front door doesn't keep you from slipping out at the back door and visiting your neighbors. It's not a joke at all. It is a dishonorable, dangerous thing to do, and may mean that you may soon use your front door or your neighbor's front door to follow a little one to its grave.

DON'T TEMPT YOUR DOCTOR

Words fail us in expressing our opinion of the physician who sacrifices his honor to save a family the slight

inconvenience from quarantine by willfully making a wrong diagnosis of cases which he knows or even suspects to be quarantinable. To make such a false diagnosis is to willfully expose others who would not otherwise expose themselves, as well as to permit the patient himself in many instances to go about needlessly spreading infection.

Don't ask or expect your doctor to declare a wrong diagnosis in order to save you the slight inconvenience of quarantine.

SAFETY FIRST—KNOW THE LAW

Two North Carolina physicians were heard to say recently that they wished there was a law in this State to quarantine whooping cough.

No, they really did not know that the last General Assembly enacted a law that made whooping cough, measles, diphtheria, scarlet fever, typhoid fever, and many other diseases quarantinable. They were not even aware that they were required by this law to report, within twenty-four hours, to the county quarantine officer, all cases of communicable diseases that they were called on to attend. Evidently they did not know that their county had such an officer who is paid a monthly salary to enforce the law in their county. Nor could they have known that this same General Assembly created a Bureau of Epidemiology as another department of the State

Board of Health, and placed at its head a State Epidemiologist as executive officer.

Lucky men, not to have become entrapped by the law in their darkness! Since the law went into effect August 1, four physicians have been indicted for noncompliance with its terms, while several others have come dangerously near.

Parents, householders, and public school teachers, as well as physicians, have duties under the new State quarantine law, and lest they be not aware of such a law and their relation to it, they, too, are advised to procure a copy at once from their county quarantine officer or from the State Board of Health and read it.

ENEMIES OF LITTLE CHILDREN

As shown on the front cover page of this issue of the Bulletin, there are no greater enemies of little children today than physicians who fail to report contagious diseases; mothers who do not realize the seriousness of children's diseases, such as whooping cough and measles, and who fail to recognize their early symptoms; mothers who have no regard for the quarantine law nor for the health of their own children whom it is intended to protect; and quarantine officers who are indifferent and fail to do their duty as officers of the law. If little children continue to die in North Carolina, these four classes of people will be most responsible.

The State values the lives of babies and little children. It considers them worth saving. At the last meeting of the Legislature it passed a law which will be the means of saving many lives and hundreds of cases of illness if only physicians, parents, and quarantine officers will do their duty by the law.

Physicians are required by this law to report to the quarantine officer within twenty-four hours all cases of whooping cough, measles, diphtheria, scarlet fever, smallpox, infantile paralysis, typhoid fever, or cerebro-spinal meningitis, that they are called on to attend.

Parents are required by this law to report to their county quarantine officer every case of contagious disease in their household to which a physician has not been called, whereupon instructions for the treatment and control of the disease, together with placards for quarantining the patient, will be sent by the quarantine officer to the parents, who will carry out the instructions and post the yellow placard on the front of the house.

Quarantine officers are required to see that parents reporting a case of contagious disease shall receive a yellow placard with the name of the disease printed on it; also, that they receive the law and the rules and regulations for posting the placard and for safeguarding the public against the disease. The quarantine officer is the officer of the law, and his duty is to make it give the protection for which it was intended.

The people's duty is to look upon the quarantine law as a friend to humanity, particularly little children. They should respect it and see that others respect it. They should not consider quarantine as an unnecessary hardship, but the best known way to protect babies and children from unnecessary illness and death. Baby life is more valuable today than ever in the history of the world, and whoever helps to save a life or remove such dangerous pitfalls as contagious diseases from a child's life renders a service to his country as well as to humanity.

TUBERCULOSIS

CLIMATE AND TUBERCULOSIS*

Things That Consumptives Should Carefully Consider

HE consumptive who contemplates going to a distance in search of a favorable climate must consider the advantages and disadvantages—how much good the better climate will do, and what he forfeits in making the change; whether the gains compensate for the losses.

Expense.—It costs considerable to go away from home and live as a consumptive must live. There is the question of railroad fare, living expenses, and medical supervision. There is usually a far better chance of regaining health at home than in going away with insufficient funds chasing that will o' the wisp, the "best climate," which may possibly after all be found in one's own dooryard during as many months of the year as in the prospective new locality. Consumptives are prone to try first one locality, then another, ever in search of the wished-for climate which will miraculously restore health, often living in boarding houses, having unsatisfactory food and poor medical supervision, lonely and sick.

Food.—The consumptive needs greater attention to the food than does the well individual. The food should be good, well prepared and appetizing. One should consider whether this will be obtainable away from home.

Work.—Many expect to secure work to pay their expenses in the locality

to which they go in search of health. One should know whether work can be obtained and of what kind, whether it will be indoor work under unfavorable conditions; whether the work will be too great a tax on the strength of the individual. It should be understood that in the new locality there will probably be many other health-seekers also wanting work, and that the competition is likely to be keen; also that the atmosphere of the office or workshop is likely to be little better in one locality than in another. One who must work should carefully consider whether more suitable work under more favorable conditions cannot be secured in the home locality.

Medical Supervision.—Every consumptive needs at times competent medical advice and supervision. This is particularly so for a patient who has not had training as to how a consumptive should live and what he should avoid, such as is usually best acquired at a well-managed sanatorium. One should consider whether better medical supervision can be obtained at home than away.

Absence of Family and Friends.—In leaving family and friends to go among strangers in a new locality one should realize the possible effects. This is particularly true for one who has never before been away from home. It is practically impossible for a consumptive who is homesick to regain health. His best chance for recovery is where he can at least occasionally see his family and friends.

Summary

A favorable climate for a consumptive is one that is not too warm. A

*From an essay by Dr. John W. Trask, Assistant Surgeon-General U. S. Public Health Service.

moderately cool atmosphere is invigorating, while a too-warm one is depressing. Very cold weather, on the other hand, makes the living of an outdoor life more difficult and less attractive. Moderately cool atmospheric conditions are those to be sought.

No locality has a climate that is favorable all the year, and most localities in the United States have favorable climates for a considerable portion of the year if one will only take advantage of them.

In one's quest for a favorable climate one must not forfeit suitable food, rest, and peace of mind, or gain a more favorable atmosphere in which to live at the price of homesickness and worry.

The consumptive can usually obtain the most favorable conditions for recovery, including an outdoor life, suitable food, rest, medical attention, and nursing, at or near his home. A suitable atmosphere or climate can be obtained during many hours of the day by avoiding overheated or crowded rooms and by sleeping on a porch in all ordinary weather and in a room with open windows when it is very cold or stormy.

Leaving home, except to go to a sanatorium, is fraught with much danger, unless one is financially able to meet all possible demands, and it should be most carefully considered even then.

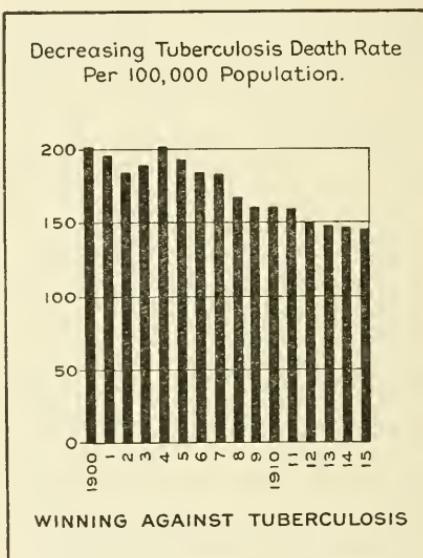
WINNING A HARD FIGHT

How We Are Gaining Fight Against Tuberculosis—How to Hasten Complete Victory

 HE fight against tuberculosis is a hard, long-drawn-out war. It began before the European war, and it will continue long after peace is declared. But we are winning. Here in

the accompanying cut is the indisputable proof. In 1909 our annual death rate from tuberculosis per 100,000 population in the registration area of the United States was 201.2. Within as little as fifteen years we have lowered this rate to 145.8 per 100,000 population—a reduction of 27½ per cent in fifteen years.

The true significance of this saving is better appreciated when we consider



that if we had today the same death rate that prevailed in 1900, we would have over 55,000 deaths this year from tuberculosis that we will not have owing to our present-day improved health conditions. In other words, if the anti-tuberculosis work of the past had not been done, the Great White Plague would, in addition to its present ravages, blot out more than all the 40,000 lives now in one of our great training camps. Moreover, these lives would be those of our most valuable and productive men and women in the prime of life. Tuberculosis does not greatly affect small children or old people who have served their term of

usefulness. It is largely a disease of middle life.

But this war is not over. We have only pushed back the enemy's line. We can not stop now. We must fight to hold what we have. Our loss is still appalling. The ideal condition is to go on through these lines and stamp out the last vestige of the disease and then the fight will be over. Several modern, progressive communities are already taking steps to do this. About the only possible reason why they may not be able to stop the fight, after they have entirely eradicated their own tuberculosis, will be because other less progressive communities will continue to sow the seeds of tuberculosis in their midst. If we temporize with the matter now, we will have to keep up the work and expense of the fight indefinitely and continue to lose from 125,000 to 150,000 valuable lives annually.

To win we must do a lot of educational work—educational work among the masses in regard to how to prevent tuberculosis, how to recognize it, how to be cured, and how to avoid infecting others; educational work among the doctors in regard to early diagnosis, prompt reporting of the disease to the State Sanatorium, proper treatment, proper instruction of patient and family; educational work among public officials in order that we may have proper laws to safeguard both the sick and the well, in order that we may have adequate hospitals for the advanced cases, sanatoria for the incipient cases, open air schools for our children, visiting nurses, and an adequately equipped health department—then we may confidently expect to see the tuberculosis death rate decline from the largest of any disease to one of the smallest. The cost of such work will not begin to compare

with the loss we are now sustaining, and future generations will wonder why their forefathers ever tolerated such a tremendous unnecessary preventable waste of precious human lives.

TUBERCULOSIS AMONG PRISONERS

DR. F. M. REGISTER,

Health Officer of Northampton County; former
Prison Physician at the State Farm,
Tillery, N. C.



ROM fifteen years experience as a prison physician, I find tuberculosis among prisoners very prevalent, and one of the most vexing questions of prison management. This is due, in a great measure, to the limited amount of knowledge now possessed by the general public in regard to tuberculosis, its manner of spread, and its treatment or cure. Its prevalence in prison is truly alarming. Furthermore, it is a menace to the civil population from the fact that prisoners with tuberculosis whose terms have expired are continually going out and spreading this most terrible disease without let or hindrance.

"Mortality from pulmonary tuberculosis has long been so high in prisons and reformatories that sentence for a term of years is almost equivalent to a sentence of death by consumption" (Johnson). Furthermore, "Tuberculosis is said to cause 40 per cent of deaths in prisons" (Luzzato).

Conditions in county jails are often much worse than in penitentiaries. The new law now provides for the examination of each prisoner on entering. It further provides that each cell shall be thoroughly disinfected after removal or death.

Up to June 1, 1917, tuberculosis in our prison was dealt with in a very desultory and lax manner. Tuberculous prisoners were continually in close contact with other prisoners, and

the prevailing idea among most of the laymen in authority was that if a prisoner looked well and gave a negative sputum examination, he therefore was well, and was expected to do his maximum part to make the prison a financial success.

When a man develops tuberculosis after being in prison for a term of years, it would appear that someone is to blame. Someone is to blame, and we should not consider the account squared by giving him a pardon, which usually means that he is to go off and die with tuberculosis. I consider it the most Christ-like thing a Governor can do to pardon a man, and I heartily commend the Governor of this State on every pardon he has given thus far. Every act of clemency shows that we are getting farther away from the old idea of revenge, particularly the old law of "an eye for an eye and a tooth for a tooth." No right-thinking man wants to be either the oculist or the dentist in these cases.

There should be some arrangement whereby a man, after being pardoned, could be cured of tuberculosis before he goes home or out among the people at large, to scatter the germs of the Great White Plague. The State should provide at once (borrowing the funds, if need be) a tuberculosis hospital, to be located preferably in the sand hills or on the State farm. There should be an isolation ward for those suspects under observation, and a general ward for known cases; the hospital itself should be modern and up to date. Texas has established a farm colony (Wynne State Farm); New York State also has one in the Adirondacks, and probably other states have established similar colonies for their tuberculous prisoners.

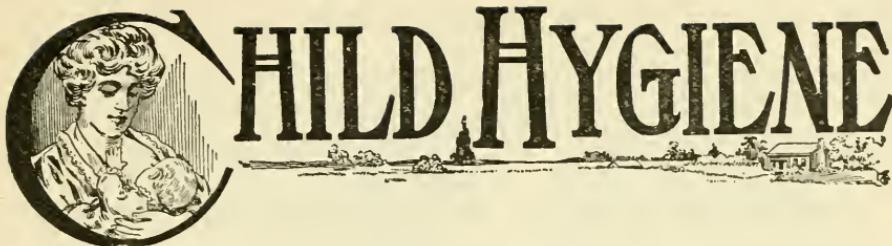
In the Superintendent and Chaplain of our State Prison we have most ex-

cellent men. The three physicians, two at Raleigh and one at the State farm, are most excellent physicians, but they can do very little more than the people of the State demand through their laws. They can only comply with the law. "We are, all of us, more or less the slaves of public opinion." The people, the whole people, must get behind and push to a finish this uplift movement for better prison conditions. We should not forget that "When the heart of man shuts out, sometimes the heart of God takes in."

Our demands from the State Prison should not be in dollars and cents altogether, but rather in reconstructed men. It should be how many men cured of tuberculosis, rather than how many bales cotton produced; how many men taught to read and write, rather than how many bushels of wheat raised for sale; or how many men taught a trade, made self-sustaining and valuable members of society, safe to be liberated without fear of further crime, rather than a record crop of peanuts, or the number of miles of railroad built. Again, it should be how many men are brought to Christ, rather than how many were made to serve full time for their offenses. We, the people, and not the superintendent, chaplain, and doctors, are responsible for the policy of our prison. We get from our lawmakers just what we demand.

Just one thing to remember: Tuberculosis is preventable, and where an early diagnosis is made, it is curable, be it in prison or in civil life.

Thin-soled shoes and wet feet are cordial invitations to colds, grippe, and pneumonia.



DIPHTHERIA CARRIERS

What They Are and What to Do About Them.

DIPHTHERIA carriers are persons who harbor diphtheria bacilli in the secretion of either their nose or throat. This condition may follow their recovery from diphtheria and may persist in exceptional instances a long time, owing very largely to the presence of minute foci of inflammation (often in the tonsils) which do not disturb the person's general health. It may also follow their recovery from such mild cases of diphtheria that the disease was not recognized. Persons who have never had diphtheria may, themselves, become "carriers," after exposure to cases of the disease or "carriers" of the bacilli. These "carriers" should not be reported as cases of diphtheria.

An attempt has been made to distinguish "carriers" of nonvirulent bacilli from those that harbor the more virulent infective agents of the disease. Tests on animals are necessary to distinguish the virulent from the nonvirulent bacilli. If after five weeks thorough treatment the diphtheria bacilli persist, a virulent test should be made in an approved laboratory.

Precautions to be Taken.

All carriers should be under supervision of the local health officer and should be excluded from all places of public assemblage until the bacilli in their throats disappear or are proven

nonvirulent. Special precautions should be taken to exclude them from schools and from occupations which bring them in contact with children and milk and cream supplies. They should be required to exercise the utmost care in the disposal of all discharges from the nose and throat, and to treat all personal articles, handkerchiefs, eating and drinking utensils, which may become contaminated with these discharges, by boiling or exposing to direct sunlight for at least eight hours. When proper care is taken, complete isolation and quarantine are unnecessary, but when precautions are not taken and directions are not followed, isolation and quarantine should be enforced to protect others who may be susceptible to the disease. Under no conditions should a "carrier" be permitted to handle milk or cream in any way.

Treatment of Carriers.

1. Fresh air, sunlight, a simple nourishing diet with out-door exercise and a most careful personal hygiene, are all essential.
2. Operative treatment on the mucous membranes of the nose and throat is often necessary to remove any abnormalities or inflammatory processes such as adenoids or enlarged tonsils.
3. Local treatment is most important.
 - (a) Thorough douching of the nose and throat three or four times daily for several weeks: In the nose bland washes (such as normal salt solution), in the throat bland washes or antiseptic

tics (of which a 30 per cent solution of alcohol is most efficacious). The following is a simple and efficient throat wash:

Soda bicarbonate	5 grams
Glycerin	10 grams
Alcohol	30 grams
Water	60 grams

(b) Treatment with Kaolin (Fuller's Earth) has recently been recommended. It should be given in doses of a half teaspoonful every hour during the day. If this treatment causes constipation, it should be corrected. Saline gargles should also be used several times during the day.

Any treatment to be effective must be thorough and continued.

Cultures should be taken on two successive days at intervals of one to two weeks to ascertain the effect of treatment.

WHOOPING COUGH, MEASLES, AND SCARLET FEVER

The principal epidemic maladies of childhood— whooping cough, measles, and scarlet fever—were together responsible for 11,489 deaths of both adults and children, or 17.1 per 100,000 in the registration area in 1915, the rates for the three diseases separately being 8.1, 5.4, and 3.6, respectively. In 1913 measles caused a greater mortality than either of the other diseases, but in 1914 and 1915 whooping cough had first place. In every year since and including 1910, as well as in several preceding years, measles has caused a greater number of deaths than scarlet fever. The mortality rates for all three of these diseases fluctuate greatly from year to year. The rates for measles and scarlet fever in 1915 were the lowest since 1900, while that for whooping cough was somewhat above the lowest re-

corded rate for this disease, 6.5 in 1904, although far below the highest, 15.8 in 1903.

WHAT IF IT WERE YOUR CHILD?

What would you think of the father and mother who knowingly sent their child with a sore throat to school who a few days later came down with a bad case of diphtheria? And how much harder would you think, if you knew that the infected child had, innocently so far as it was concerned, exposed your own little boy or girl to this dread disease? Now, turn the case around and get the other viewpoint. Suppose you were the parent that had permitted your child to infect your neighbor's child? How would you feel about it? No need to tell how your neighbors would feel towards you, because you know. Why not, then, be as careful and as considerate of the health of your neighbor's children as you would ask that they be in protecting the health and safety of yours?

DOES YOUR CHILD

Sleep badly?

Breathe through his mouth instead of through his nose?

Have trouble in hearing?

Have frequent colds?

Have a bad temper?

Have trouble learning his lessons?

Have swollen glands in his neck?

These are some of the results of adenoids and of enlarged or diseased tonsils.

Rheumatism, tuberculosis, heart disease and other serious maladies are encouraged by such conditions.

Your child's future depends upon his health as a child. It is your duty to make sure that he has no physical defects—that adenoids or enlarged or diseased tonsils do not handicap him through life.

PERSONAL HYGIENE



CANCER DEATHS ARE INCREASING

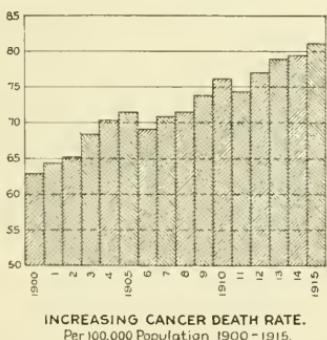
How to Prevent and Cure the Disease.

CANCER is on the increase. This is a sad fact, but it is true. The accompanying cut shows how cancer in the United States has increased from 1900 to 1915. That it is not a dis-

for its cure, we do know much about the cause, and know how to cure at least 9 cases out of 10. Proper treatment taken in time is the only cure.

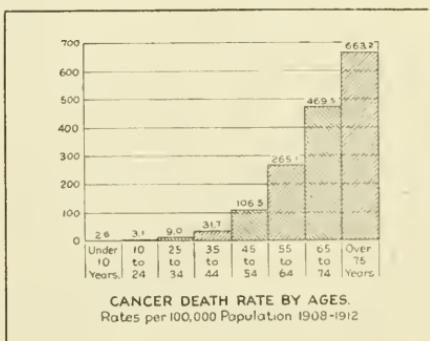
The great trouble with cancer is that it usually begins as a painless innocent-looking swelling or lump that can be moved about, or a bleeding place which attracts little attention. Cancer is not usually painful until its late stages. If it were painful in its early stages it would doubtless lead many to visit a good doctor or surgeon to have the trouble promptly remedied.

Cancer is now recognized as a preventable disease. It is more easily prevented than cured. Cancers usually result where there has been a bruise or a continued irritation, as from a corset stay on the breast, a pipe stem on the lips, a broken tooth on the tongue, a pinch of snuff or a chew of tobacco on the cheeks, or ill-fitting spectacles on the nose. For this reason, long continued irritation of any spot should be avoided, particu-



ease of children or young people is shown by the second cut, wherein it will be seen that cancer does not really become a serious problem until we pass the age of 40 or 45. Beginning at 25 years of age, the death rate increases about 300 per cent every ten years for nearly four ten-year periods, and even after that it continues to increase very rapidly.

This increasing death rate is altogether unnecessary. While we may not know all we should like to know about the exact cause of cancer, or some infallible get-well-quick scheme



larly in persons more than thirty-five years of age. Sharp, jagged, or broken teeth should be repaired. The excessive use of heavy pipes and the biting and rolling of cigars should be avoided. Constipation should be treated and hot liquids, alcoholic drinks, and strong condiments should be avoided. If gallstones are known to exist, they should be treated by operation.

Cancer is not hereditary. In some families, however, cancer is more easily produced than in others, and hence these families usually have more cancers than others. Persons, therefore, from families where a fourth or fifth of the adult deaths are from cancers should be careful to marry only into families where the cancer rate is low. Anyone from a family with a high cancer rate should not follow an occupation causing excessive or continual irritation of any particular part of the body.

There is but one real cure for cancer. That is to take it out. Cancer never gets well of its own accord. Once started, unless removed by surgical operation, it progresses slowly but surely until the death of its victim. Modern surgical operation for early cancer is very safe. It can usually be made practically or entirely painless and produces only a small regular scar, whereas caustic application or "pastes" usually cause excruciating pain, produce a very irregular scar, and are far less certain. Even surgical operation is of little value if the disease is in the late stages. Dr. W. A. Evans says: "If the disease is advanced, operation, radium, and X-rays are of limited value. The only cancers cured by pastes are not cancers at all. Somebody has been mistaken, honestly or otherwise."

Poor health is expensive.

THE TEETH AND THEIR CARE

Know How to Take Care of Your Teeth and to Guard Your Health

 THE importance of this subject needs no argument. The teeth were placed at the gateway or inlet to the human body to adequately provide the very first of the vital processes which go on within the human body of converting the food we eat into muscle, bone, brain, and brawn. With dirty, decayed, diseased, broken, missing teeth we can no more expect to properly chew or grind our food than a miller with dirty, broken or defective millstones could be expected to properly grind his corn or wheat.

A well-cared-for mouth and set of teeth are a mark of well being, refinement, and character. A dirty, vile-smelling mouth is a reproach to anybody, and a partial set of decayed, diseased snags and remnants of teeth are so many monuments to the owner's stupidity, ignorance, and indolence. Bad teeth are an unnecessary evil, a sin of omission.

The Story of the Teeth

At the age of about two or two and a half years a normal, healthy child has his full set of twenty temporary or milk teeth. This temporary set of twenty teeth come in about as shown in the upper part of the cut.

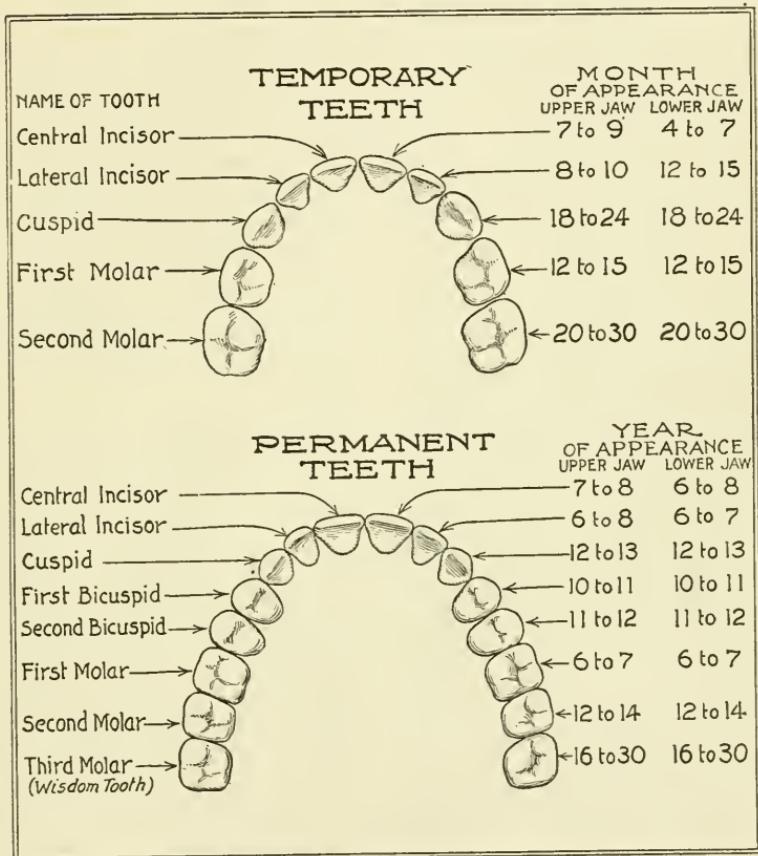
These figures are only approximately correct, and the time the various teeth appear may vary as much as six or eight months or more.

Beginning at about the sixth year the permanent set of thirty-two teeth begin to appear. Twelve of them come in back of the last temporary molar, while twenty of them displace the twenty temporary teeth. The order of appearance of the permanent teeth is

usually as shown in the lower half of the cut.

Do not forget that the last temporary tooth is in place by the time the child is two and a half or three years old; and that the next teeth cut are the so-called six-year molars. They

Another important fact to remember is that the conditions of the mouth and the permanent set of teeth depend to a very large extent upon the temporary set. If the milk teeth are allowed to decay or are pulled out before they are ready to be replaced



come in just back of the last temporary teeth above and below on either side. These are the first permanent teeth. It is with these teeth that a great many people make a grave mistake. They mistake them for temporary teeth and neglect them when they begin to decay, thinking that they will be replaced later by others, but they are the permanent teeth, and, once lost, they will never be replaced.

by permanent teeth, the jaw and face are deformed, and the permanent teeth come in irregularly. Furthermore, with decaying temporary teeth in a child's mouth there is grave danger of having the permanent teeth decay early.

While irregular or "crooked teeth" can and by all means should be straightened, at least as far as possible, the process requires much time

and many visits to the dentist. The earlier irregular teeth are straightened, the better and easier the work can be done.

Diseases of the Teeth

"What causes more evil than alcohol?" they asked that wise and conservative physician, Sir William Osler. "Decayed teeth," he replied without a moment's hesitation. Tooth decay is perhaps the most common of all diseases to which man is heir. Tooth decay sooner or later causes toothache; but toothache is only a fore-shadow of what is likely to result if the tooth is not promptly treated by a dentist. Toothache is a danger signal, but it is frequently sounded too late to enable the dentist to save the tooth. We used to think that toothache, the good old-fashioned "jumping toothache," was about the worst punishment any one could receive for the crime of decayed teeth. Now we are beginning to learn that the pus and vile, poisonous, decaying matter from bad teeth has a far-reaching effect in stomach disorders, rheumatism, heart trouble, and a vast train of disorders causing ill health and disease in almost every part of the body. Bad teeth are more or less related to tuberculosis—so closely, in fact, that in the treatment of tuberculosis one of the very first things done is to put the patient's teeth in order. It is this far-reaching relation of the teeth to vitality, health, and efficiency that makes the Government examine our soldiers' teeth so closely.

The three principal tooth disorders are tooth decay, tartar, and pyorrhea or "Rigg's" disease. There are two principal causes of tooth decay. Sickness, particularly during childhood—from such diseases as measles, whooping cough, scarlet fever, and diphtheria—so weakens the body during the formative period of some of the teeth that

there results at that time a more or less defective section in those teeth, not unlike the ring to be noted on the nails following a sudden illness. It is this more or less defective section that frequently gives trouble from decays in later years. The other cause of tooth decay is unclean teeth and mouths. When particles of food are allowed to lodge on or between the teeth they ferment and form acid quite like the action of vinegar or sour milk. This acid thus formed attacks the tooth and in the course of time a place, probably a section already weakened by some childhood disease, yields to the dissolving effect of this acid and we have decaying teeth. To avoid tooth decay, the mouth and teeth should be kept clean and every tiny spot of decay filled at once by the dentist.

Tartar is a deposit of lime-like material from the saliva mixed with food particles which forms around the necks of the teeth at the edge of the gum. These deposits are invisible at first, being usually on the inner surface of the lower front teeth and on the outer surface of the upper teeth. They cause the gums to become swollen, sore, and bleeding. Later the gums recede, exposing more delicate portions of the tooth to the possibility of decay. If this tartar is allowed to continue, pus pockets form and eventually the tooth is lost. To avoid tartar, the teeth should be cleaned by thorough brushing at least twice a day, and a dentist should examine the teeth and remove any tartar deposits regularly twice a year.

Pyorrhea or Rigg's disease is a disease of the sockets of the teeth. While it resembles tartar, it is a much more loathsome and persistent disease. Tartar, constipation, overwork, decaying food, and general uncleanliness of the mouth and teeth are among the principal causes of Rigg's dis-

ease. Prompt treatment by a good dentist is the only hope of relief or recovery from any of these diseases of the teeth. In all cases, however, "prevention is better than cure," and far cheaper.

Care of the Teeth

A clean tooth never decays. To properly clean the teeth requires the use of a toothbrush and tooth powder or paste, a toothpick to remove food particles from between the teeth and dental floss or coarse silk thread for use where toothpicks cannot be used. Almost any of the prepared tooth powders, pastes, or dental creams now on the market are very satisfactory. Where preferred, a few cents worth of powdered chalk will be found nearly as effective as the more expensive preparations, or where a year's supply is desired, it may be had at a cost of about fifty cents by mixing a pound of powdered chalk, three ounces of castile soap, three ounces of sugar, and two ounces of orris root.

Do not use a toothbrush with a flat bristle surface. They do not clean between the teeth nearly as well as those having irregular or tufted bristles. Ordinarily a soft or medium stiff bristle is suitable for adults, while children or those having delicate gums should use soft bristle brushes. Bristles that are too stiff may injure the gums where they join the teeth.

While it is far preferable to brush the teeth the last thing before retiring, the first thing upon arising, and immediately after each meal, many persons find it inconvenient to brush the teeth more than twice a day. After each meal food particles should always be removed from between the teeth by means of a toothpick or dental floss, and, if possible, the mouth

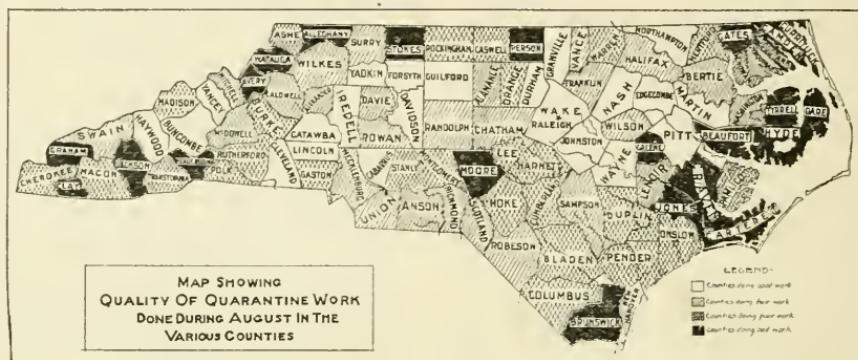
and teeth should be rinsed out by forcing around and between the teeth, by means of tongue and cheeks, a mouthful of water.

The second great factor in the care of the teeth is the making of regular visits to a competent dentist twice a year. By having the teeth examined, cleaned, and any slight decays remedied, the teeth and mouth will be kept in excellent condition at all times. Know that the dentist you employ or consult is a **good dentist**. There are many unscrupulous and unskilled persons throughout the State claiming to practice dentistry who are doing more harm than good. Leading dentists rarely ever advertise and are usually members of the State and Local Dental Societies.

As a special aid to the better care of the teeth, the North Carolina General Assembly of 1917 enacted an excellent law providing for the medical inspection of all school children every three years, and appropriated a fund whereby those children found to be suffering from decayed teeth and other dental troubles, or physical defects, may have these defects properly treated at about one-fourth the normal prices for such work. After 1920 it will be a disgrace for any school children in North Carolina who are in need of dental treatment not to have it. Dr. Harvey Wiley once said that he hoped the time would soon come when "any person who dies without a full set of permanent teeth should be denied a Christian burial." If we keep our teeth clean and in good repair by regular visits to the dentist, and exercise our jaws and teeth by thoroughly chewing and eating plenty of coarse, rough food, and avoiding soft, pasty, "predigested" foods, few of us should be denied a Christian burial.

NEW STATE QUARANTINE LAW IN OPERATION COUNTIES AS A WHOLE MAKE GOOD REPORT

Since the State Quarantine Law went into effect, August 1, some of the counties have been doing good work with reference to the law, some only fair, and some poor. Other counties have done practically nothing. The accompanying map, with the different counties shaded according to the reports made by the county quarantine officers for the month of August, show the kind of work each county is doing. Those in white did work in August that was satisfactory to the State authorities; those singly checked did work not so good; those doubly checked made poor reports; while those in black reported practically nothing.



WHAT IS THE COLOR OF YOUR COUNTY?

While the reports from the county quarantine officers, especially the number of cases of contagious diseases reported, are a pretty safe index to the work that is being done in the county, they do not always indicate the progress made under the law. Some counties may, in that particular month, have had few cases of contagious diseases. In that case, they reported few and may not be represented fairly on the map. But in this stage of the law's operation it is safe to say that the counties which report the greatest number of cases are doing the best work. It is reasonable to believe that they are getting all or many of their cases, which requires no little effort.

County quarantine officers who fail to report cases under the pretense that they do not exist in the county, or that it will hurt some industry or offend some family, will most likely have in the end more deaths to report and more epidemics to deal with. A high case-rate for any county is not bad, but a high death-rate from preventable diseases is a disgrace, especially since the State Quarantine Law went into effect. Any county can more or less determine, by supporting the quarantine officer, and enforcing the law, the amount of illness it should have from preventable diseases.

Get back of your officer and the law and reduce much unnecessary sickness in your community this winter.



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EARTH'S TRAGEDY

TO ME, THE TRAGEDY OF THIS EARTH IS A DISEASED CHILD. THE NATURAL INHERITANCE OF A CHILD IS JOY AND STRENGTH AND GROWTH AND FREEDOM. HE IS ROBBED OF IT ALL BY DISEASE. TO ME, THE MOST TRAGIC INDICTMENT OF CIVILIZATION IS A DISEASED CHILD,—CIVILIZATION THAT STANDS STILL AND LETS A LITTLE CHILD, THROUGH IGNORANCE OF HIS PARENT OR HIS TEACHER OR FOR ANY CAUSE, BE ROBBED OF THIS DIVINE INHERITANCE OF THE JOY AND HAPPINESS OF CHILDHOOD—OF THE STRENGTH AND GROWTH OF CHILDHOOD! MEDICAL INSPECTION IS INTENDED TO HELP PREVENT THAT TRAGEDY—TO HELP REMOVE THAT TERRIBLE INDICTMENT AGAINST OUR CHRISTIAN CIVILIZATION. THE PHYSICIAN AND THE TEACHER ARE NECESSARILY THE MAIN AGENCIES IN THIS WORK. MEDICAL INSPECTION, THEN, OPENS A NEW DOOR OF LARGER SERVICE TO CHILDHOOD, AND THROUGH CHILDHOOD, TO CIVILIZATION AND POSTERITY.—Dr. J. Y. Joyner, in address before State Medical Inspectors, Raleigh, October 11, 1917.

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FREE PUBLIC HEALTH LITERATURE

The State Board of Health has a limited quantity of health literature on the subjects listed below, which will be sent out, free of charge, to any citizen of the State as long as the supply lasts. If you care for any of this literature, or want some sent to a friend, just write to the State Board of Health, at Raleigh. A postcard will bring it by return mail.

No. 12. Residential Sewage Disposal Plants.	No. 107. Life Saving Facts About Diphtheria.
No. 50. Baby Leaflet.	No. 116. Scarlet Fever.
No. 52. Malaria and What Everybody Should Know About It.	No. 117. Tuberculosis.
No. 53. Disinfection After Diphtheria, Measles, or Whooping Cough.	No. 118. Measles.
No. 54. Disinfection After Scarlet Fever. Sanitary and Hygienic Care of Prisoners.	No. 119. Whooping Cough.
No. 60. Cancer Leaflet.	No. 120. Hookworm Disease.
No. 67 Adenoids.	No. 121. Sanitary Management of Hotels.
No. 71. About Your Eyes.	No. 122. Poliomyelitis or Infantile Paralysis.
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No. 73. Baby Welfare.	No. 126. Indigestion.
No. 76. Save the Baby.	Teeth, Tonsils, and Adenoids.*
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No. 86. Venereal Diseases.	Concrete Septic Tanks†
No. 87. Sanitary Privies.	Anti-Spitting Placards (5 inches by 7 inches).
No. 88. Public Health Laws.	Anti-Fly Placards (14 inches by 22 inches).
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EDITORIAL

GOVERNOR BICKETT ON MEDICAL INSPECTION

Says Medical Inspection Work Must Save the Nation From Physical Decay.

IT IS a relief to find, in this time of killing, a body of men interested in the making of lives," said Governor T. W. Bickett in addressing the recent meeting of the State Medical School Inspectors in Raleigh. Governor Bickett said further that he thought the time had come when the process of repairing defective boys and girls and making them into strong, educated men and women had become a business the State and the country could no longer neglect. He said it was bad economy not to spend money on keeping people well and on teaching them the laws of health. "It has been said that it is more of a disgrace for a man to go to the hospital than to jail. To make it necessary to have to go to the hospital," he explained, "the man must break the laws of God. Health laws are God's laws. To go to jail he must break only man's laws.

"That 60 per cent of the young men who were drafted into military service are rejected on account of physical defects which disqualify them for service," declared Governor Bickett, "is reason enough to justify the work that you physicians are now taking up. I

am told that many of the defects that unfitted them for service could have been corrected in their school days. That only 40 per cent of our men, our best men, the pick of the flock, are found physically fit to serve their nation in what is perhaps its greatest hour of need, is subject enough to make the nation wake up and take thought for the men and women of tomorrow, if not for today. It is your work, doctors, with the school boys and girls of today that we are looking to to save us from physical degeneration. In it all you have my interest and support. Call on me when you need me."

A WORD TO PARENTS

Don't think that when the medical school inspector notifies you that your child is in need of an examination or treatment that the matter is of little importance and can be attended to at any time. Not to attend to it, and do it at once, is oftentimes the difference between a strong, healthful, normal child and one who is dwarfed, anemic, and unhealthful. Oftentimes it is the difference between a dull, thick-headed pupil and a bright, clear-brained scholar, or a child who fails to make his grades and one who "goes up" every year.

Of course, treatment of any kind will cost money; but what are a few dollars to a sound mind in a sound healthful body? What would your

son not give when he becomes a man not to have been handicapped with such defects?

If your child has decayed teeth and diseased gums, the poisons of which are carried directly to his body, take him to a dentist and have his teeth repaired and his gums treated; if he has adenoids and diseased tonsils which are particularly injurious to a child's health, take him to a nose and throat specialist and have his adenoids and tonsils removed; if his vision or hearing is defective, take him to an eye or ear specialist and have the defect corrected. Whatever he is found by the medical school inspector to need, spare no pains in giving it to him. No amount of money can take the place of, or repair, the ugly work that defects and impairment do in early youth if not attended to.

A WORD TO TEACHERS

The following suggestions constitute the teacher's part in effectively enforcing the Medical School Inspection Law:

1. Try to grasp the full meaning and purpose of the Medical School Inspection Law, so that you may enter more heartily into the spirit of the work.

2. Study carefully the Manual of Instructions, known as Special Bulletin No. 93, before undertaking the work. A copy may be had from the State Board of Health.

3. Don't fail to write to the State Board of Health for information, advice, or suggestion concerning any point not fully understood.

4. Feel perfectly free to call on the medical inspector of your county (his name and address is given on another page) for any assistance needed.

5. If you cannot obtain from the child all the information that is re-

quired on his card, send for the parents, or at least his mother, to come and see you.

6. Keep all the information you get from each child confidential. Do not mention the individual defects of any child to any person other than the parents or the medical inspector.

7. Write down on the blank any suspected disease or condition of the child which is not fully covered in the answers to questions directly asked.

8. Be sure to fill out a card for each child in your grade or school, and see that the card gets into the hands of the medical inspector immediately after being recorded.

9. Make it your personal duty to see the parents of each child whom the medical inspector finds is in need of treatment; and urge upon them the importance of having proper treatment given.

10. Try to convince the parents that nothing is advised that is not strictly for the good of the child; and that no treatment of any kind is to be given unless it is with their approval and consent.

TRIPLE VACCINE

The State Laboratory of Hygiene is now making and distributing to physicians upon request, triple vaccine. This vaccine is used to produce immunity against both typhoid and paratyphoid fevers. It is composed of typhoid, paratyphoid A and paratyphoid B bacilli. The general vaccination against the paratyphoid fevers is not recommended, but the vaccine should be procured and administered in case of exposure.

Until recently paratyphoid fever was practically unknown in the United States Army, but since the occurrence of an outbreak of this disease on the Mexican border last year, and on ac-

count of exposure that the soldiers are likely to encounter in foreign lands, the Army is now using the triple typhoid vaccine.

In making this vaccine, the State Laboratory of Hygiene follows precisely the technique used in the United States Army, using the same strain of bacteria; therefore, the vaccines may be said to be identical. Last year the United States Public Health

be allowed unless it is decent, properly located and fly-proof, and that no privy shall be situated nearer than 100 feet to a well or nearer to a neighbor's residence than to the owner's residence.

Nash is, furthermore, the only county in the State that requires its school children to be vaccinated against smallpox before entering school. It also conducts an annual summer cam-

HEALTH AND PATRIOTISM

All the armaments in the world, the best that Krupps or Bethlehem Steel can turn out, will never prevent one foe from landing on our soil if the man behind the gun is a degenerate.

Not less so is it on the farms than at arms.

One is surprised to find how large a proportion of our young men of today are rejected. One is reminded that we are threatened with a deterioration which may imperil our very existence. May we not well say to the men of today: "The waste of your health may imperil not only your living, but your liberty."

And have we as a nation realized that our greatest asset is not our banks, or our factories, or our mines, or our farms, but our manhood?

Now is the time to turn our attention to building up our walls at this point. To save the children's health is to have a strong, healthful manhood and womanhood.

Service tested the vaccines of each State and reported that North Carolina's was entirely satisfactory.

NASH LEADS IN HOME SANITATION

Every Home in This Progressive County is Required to Have a Sanitary Privy.

NASH is the only county in North Carolina that requires every home in the county to have on its premises a properly constructed sanitary privy. The ordinance requiring this protection of the home went into effect September 1, 1917, and further requires that no privy shall

paign against typhoid fever, giving free antityphoid vaccination to everybody. Consequently, it has reduced its cases and deaths from typhoid fever and smallpox to a remarkably low rate. Numbers of lives and thousands of dollars are saved the county every year from these two diseases.

Nash was one of the first counties in the State to employ a whole-time county health officer. It has never regretted the step nor felt poorer by having paid the officer a decent salary. When it graduates one health officer, it employs another. Dr. J. A. Speight, the present officer, is the fourth that the county has had.

Nash has long been convinced that money spent in health work pays.



PUBLIC HEALTH AND SANITATION



MEDICAL INSPECTION LAW IN OPERATION

Duty of Inspectors to Make Possible a Strong Mind in a Strong Body.

 THE medical school inspection law of North Carolina requires that every child attending the public schools shall be given a physical examination every three years. This means that one-third of the counties of the State shall arrange each year to have this work done. A competent physician is chosen by the county board of education as medical inspector, and he follows the plans and specifications furnished him by the State Board of Health.

The following physicians have been appointed medical inspectors for the thirty-five counties to do this work this year, and upon them will rest the responsibility of launching this important education-health work.

Alamance—Dr. L. J. Smith, Graham.

Buncombe—Dr. D. E. Sevier, Asheville.

Camden—Dr. W. L. Stevens, Shiloh.

Currituck—Dr. W. T. Griggs, Poplar Branch.

Caldwell—Dr. L. H. Coffey, Lenoir.

Catawba—Dr. Geo. W. Shipp, Newton.

Davie—Dr. J. W. Rodwell, Mocksville.

Davidson—Dr. E. F. Long, Lexington.

Edgecombe—Dr. K. E. Miller, Tarboro.

Franklin—Dr. J. E. Malone, Louisburg.

Forsyth—Dr. A. C. Bulla, Winston-Salem.

Guilford—Dr. William M. Jones, Greensboro.

Gaston—Dr. L. N. Glenn, Gastonia.

Haywood—Dr. J. R. McCracken, Waynesville.

Hertford—Dr. R. H. Gary, Murfreesboro.

Johnston—Dr. Thel Hooks, Smithfield; Dr. George D. Vick, Selma.

Lenoir—Dr. J. S. Mitchener, Kinston.

Martin—Dr. W. E. Warren, Williams-
ton.

Macon—Dr. H. T. Horsley, Franklin.

Montgomery—Dr. Charles Daligny, Troy.

Madison—Dr. J. N. Moore, Marshall.

Mecklenburg—Dr. C. S. McLaughlin, Charlotte.

Nash—Dr. J. A. Speight, Nashville.

Northampton—Dr. F. M. Register, Jackson.

Pasquotank—Dr. Zenas Fearing, Elizabeth City.

Polk—Dr. Earle Grady, Columbus.

Pitt—Dr. M. T. Edgerton, Jr., Greenville.

Robeson—Dr. W. A. McPhaul, Lumberton.

Swain—Dr. J. L. Reeves, Whittier.

Translyvania—Dr. C. W. Hunt, Brevard.

Wake—Dr. Z. M. Caveness, Raleigh.

Wautauga—Dr. J. W. Jones, Boone.

Warren—Dr. Charles H. Peete, Warrenton.

Wilson—Dr. J. C. Braswell, Jr., Wilson.

Yancey—Dr. J. B. Gibbs, Burnsville.

Medical Inspectors of City Schools

Asheville—Dr. Carl V. Reynolds.

Greensboro—Dr. J. T. Reeves.

Winston-Salem—Dr. R. L. Carlton.

Charlotte—Dr. C. C. Hudson.

Raleigh—

The inspectors will begin work in their respective counties not later than November 1. The main purpose of their examinations will be, first, to detect and correct physical defects found in school children, such as decayed teeth, diseased gums, diseased tonsils or adenoids, and defective vision and hearing; second, to detect and exclude all cases of parasitic or contagious diseases, such as tuberculosis, or diphtheria, scarlet fever, measles, whooping cough, or smallpox; third, to maintain good hygienic conditions in school, as proper ventilation, a healthful temperature, good light, a safe water supply, and sanitary means of sewage disposal; and, fourth, to so correlate health work and school work as to produce the maximum of efficiency as far as is consistent with the preservation of health.

In brief, the duty of the medical school inspectors will be to find and remedy those conditions in school children, as far as is possible, that hinder the natural development of a strong mind in a strong body.

BLUE SALIVA

If saliva stained things blue, what a blue world this would be. In fact, it would be a study in blue. Door knobs, handles, street-car straps, window ledges, magazines and books in libraries, doctors' offices, and private homes would all have blue covers. There is no limit to the common exchange of saliva.—Dr. William Brady.

POINTED TRUTH ABOUT QUARANTINE

Not to "Get Even" With Anybody, But to Protect Life and Health



GROUP of "prominent citizens" had gathered for a social session. Men and women of intelligence were there, and honorable people, all of them, or thought they were. During the evening the subject of quarantine was discussed, and how annoying it is to be quarantined, and all that. Then the little group, or several of the group, began telling how they had avoided quarantine. They related with merriment how each had "fooled the doctors" and escaped from home and gone about their business despite the fact that there was a contagious disease in the house, and they seemed to think it a good joke on the health officers that the card on the front door didn't keep them from using the back door. Not one in the group considered that he or she had done a dishonorable or a dangerous thing.

There was not a person in the group who would shoot a man in the dark. There was not one who would break into a home and rob it. There was not one who would catch a child in an alley and choke it to death, or willfully destroy a home with dynamite. Yet none of these things is any worse than to leave a home that is quarantined and go about the streets.

Is it any worse for a man to catch a kid in an alley and choke it to death than to inoculate it with the germs of diphtheria and thus cause it to strangle? Would it be any worse to blow up a home with dynamite than to infect that home with scarlet fever? Should it be a greater crime to pry open a window and rob a residence than to be the cause of typhoid fever entering the home through the hydrant? What

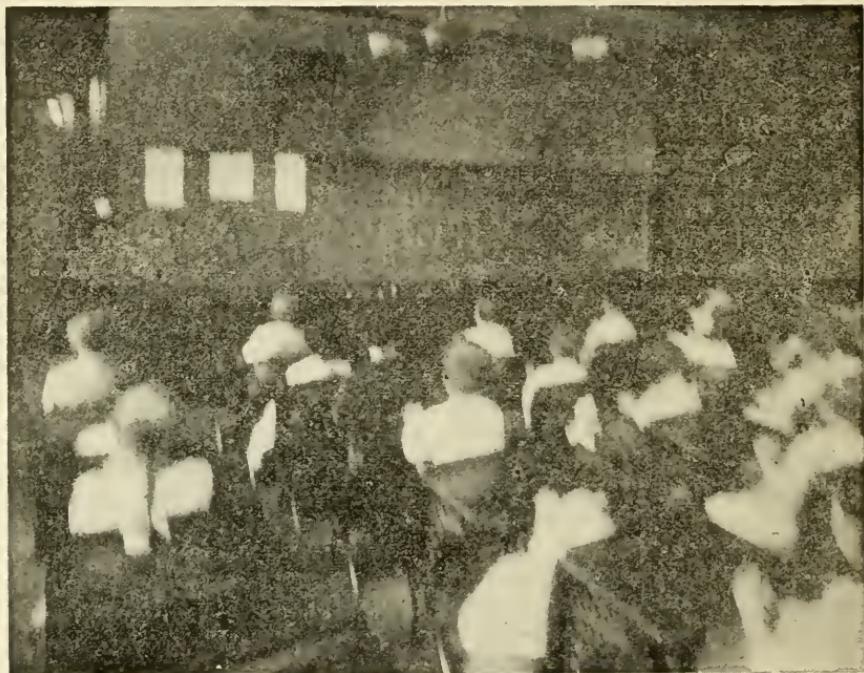
is the moral difference between shooting a person in the dark and spreading contagion that kills him?

The health officers are not issuing quarantine cards for fun. They are not demanding that you stay at home when quarantined simply to "get even" with you for something you have done. They know what they are doing, and they are doing it for the good of the thousands of people of this community. And if you are a law-abiding

GLASSES MAKE THE DIFFERENCE

Headaches, Weariness, and Nausea Remedied by Properly Fitted Glasses.

DFTENTIMES children suffer from eye troubles and don't know it. They have headache, feel weary, and sometimes they become slightly nauseated, all on account of eye-



The way the school room looks to a child who needs to have his eyes examined and glasses properly fitted.

person you ought to assist the health officers in carrying out their orders rather than scheming to thwart the officers in their work.—Newark (N. J.) Health Bulletin.

The nation which has the highest degree of health in times of peace will have the highest degree of efficiency in time of war.

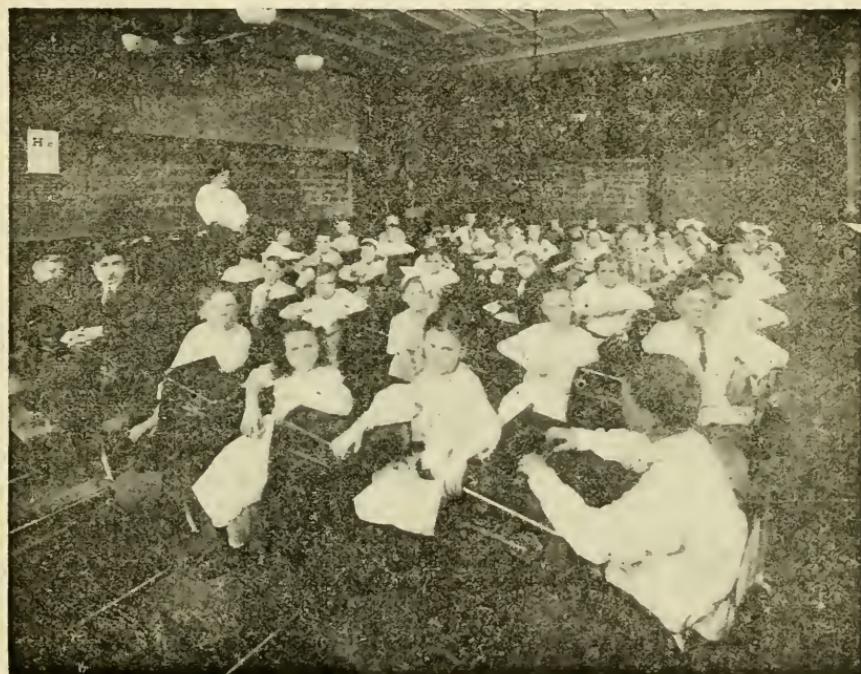
strain. They are usually unconscious of any strain and do not know that they are seeing objects only half distinctly. As, in the first picture, a pupil who needs to have his eyes examined by an oculist and to have glasses fitted sees indistinctly. Objects appear to him blurred. His schoolmates, his teacher, and the writing on the blackboard are dim and uncertain. It is with the greatest dif-

ficulty that he reads the writing on the blackboard, if he reads it at all.

But when he has visited the oculist and had the corrections made and glasses fitted, the schoolroom and all of its objects appear to him clear and well defined as in the second picture. Study becomes a pleasure, headaches disappear, and school work that was formerly a burden becomes a delightful task. A pair of properly fitted

ed," "stubborn," or "willfully intractable." Proper treatment was given ten of these pupils, which resulted in a number of them "making" two grades during the remainder of the session and all of them showing marked improvement and becoming good, tractable pupils.

Eye-strain is frequently caused by reading in a dim, unsteady light, in the twilight, in a bright glare from



The way the school room looks after he has had his eyes examined and glasses properly fitted.

glasses can often change a dull, backward pupil to a bright, active scholar.

An examination recently made of ninety-one children in one rural North Carolina school disclosed the fact that thirteen were suffering from serious defects of the eyes. These children complained bitterly of headache and of being tired. The teachers, on the other hand, made the complaint that the children were "lazy," "hardhead-

the sun, or in an artificial light. Reading or studying in school with the light coming from the wrong way or with the book on a desk that is too high, or reading in bed, is also likely to cause eye-strain. Wiping one's face on the common roller towel is a source of many dangerous eye diseases that are catching. Avoid such unsanitary practices and learn to value your sight as the most important of your senses.

PERSONAL HYGIENE



WHY ARE PEOPLE SICK?

Not Due to Divine Will, But to Violation of the Laws of Life.

WHY are people sick? In the days before there was any scientific knowledge of the causes of disease there was no better answer than to refer it to the inscrutable divine will, or to interpret it as a part of the moral and spiritual discipline of life ordained by the Supreme Ruler of our lives. These answers were not wrong in principle. But merely to say that it is providential is not sufficient under the present knowledge. In the light of science we have come to see that the divine will is not capricious nor wholly incalculable in its action; and with every advance of science the rationale of that will becomes clearer to us. This is a divinely controlled universe; but this does not mean that it is not a universe of order. "All's love, yet all's law."

Sickness results from a violation of the laws of life somewhere and by somebody. And to say that God intends and desires men to be sick is tantamount to saying that he intends and desires them to violate the laws of life which are of his own ordination. That is absurd. God simply intends that men shall be sick as a consequence of such violation; but this, we may surely believe, is because he desires that they shall live according

to those laws. The conservation and fulfillment of life is his fundamental and final aim; and disease itself is but a disciplinary method of enforcing the laws that make for life. Disease is merely the natural way of insisting on the duty of health.—Dr. W. L. Poteat, President of Wake Forest College.

HAVE YOU EVER WONDERED WHY THIS HAPPENED?

We constantly read in the daily press accounts of persons dying suddenly who were not suspected even of being in bad health, and also it frequently happens that we are surprised to learn that a friend that we had met within a day or two apparently in perfect health is suddenly found to be desperately ill.

The reason for this is that many diseases are so insidious that the damage to vital organs goes on without warning until the breaking point comes and with it rapid death.

Knowing this to be true, would it not be wise for all of us to have an examination made of our physical condition, say at least once a year, in order that we may feel assured that we are not living in a state of false security? If a thorough examination reveals that we are normal, that knowledge alone is worth the trouble and small expense involved; and if such an examination should reveal that we have some abnormal condition, surely such knowledge is vital

to us, that we may have the advantage of remedies applied while there is yet time, to say nothing of the saving in expense and lost time that would inevitably come later.

FOOD CONSERVATION VERSUS GOOD HEALTH

A Description of a Simple Method Whereby Any Family May Have Better, Healthier Food from Home- Grown Grains.

(Adopted from a Lecture by PROF. GEORGE L. McNUTT, Lecturer in the Redpath Chautauqua.)

FASHION, and "certain wise men," forbid the use of grains as they grow. Fashion is as tyrannical as rulers by divine right. For the sake of the snowy whiteness, Fashion rejects the priceless golden bran of the rice; she also rejects 27 per cent of every grain of wheat, and in the North, at least, as a rule, she rejects the germ and the bran of Indian corn.

Milling Grains Wet

Of the sixteen mineral elements which, with water, constitute the human body, fourteen are found in the grain of wheat. Is it little less than a crime to reject 27 per cent of what Nature has so ingeniously milled in ages past from the rocks and by the digestion of vegetation has stored up as body-building minerals in the golden grain? There is magic in bran, especially when ground wet with all that has been put up in the air-tight package of each grain. Milling grains wet and hot retains 100 per cent of all that is in the grains. It retains the bran, and best of all, perhaps, so thoroughly saturates the bran that breads made from any of the grains are pleasingly

palatable and need no baking powder or soda to make them light.

Starches of Grains Partially Cooked

The partial cooking of grains before grinding has this peculiar virtue: It makes dough of corn and any of the grains elastic like the best roller-processed wheat flour. This is a practical and immediately available way to lessen the drain on the world's available wheat supply. It is no hardship, rather a delight, to use any and all of the major grains for bread-making, provided efficiency, common sense, and faith in Nature, rather than Fashion, guides in food selection and food conservation.

The Machinery

To mill grains wet use any food chopper that has a wheel with fine grooves, such as is used for making nut butter. Meat choppers have no such wheel. Food choppers have wheels that chop meat, vegetables, and a special wheel to chop nut butter. It is with this fine-grooved nut-butter wheel that any of the grains, when cooked just enough to saturate them, can be ground into shreds while hot. In this article reference is made mainly to food choppers which many families possess, or can be had through any hardware store for from \$1.50 to \$3.00, according to size. The medium-sized food choppers or the smallest gristmills are the best for woman's strength. In grinding, the machine should be fastened near the end of the table, close to the corner so as to put the weight of the body behind the arm. To save repetition, I shall call the finest wheel the shredding wheel, the next coarsest the flaking wheel, and the next coarsest the cracking wheel. Of the gristmills especially designed for wet grinding, there is the Mocktezuma, the Nixtamel,

and the Quaker. These vary in price from \$2 to \$5. A machine costing \$50 run by electricity or other power would do the milling for a neighborhood. There is also a machine with burrs about 8 inches in diameter that could be run by a small motor and do the milling for several families.

This machine sells for \$7.50.

The Method of Wet Milling

The general method of wet milling consists of partially cooking the grains by boiling, saving the water in which the grains are boiled, and then grinding the boiled grains while they are still hot. The time of cooking the different grains varies with their size and the thickness of the bran coats. Corn requires the greatest amount of cooking and rice the least. Overcooking causes the grains to gum and back up in the grinding. When undercooked, the grinding is impossible or very difficult and the product is mealy and not elastic.

Milling Corn

To mill corn:

1. Rinse and wash the dry shelled corn grains in one or two changes of cold water, then boil for from 20 to 30 minutes, using just enough water to have the corn grains nicely covered at the end of the boiling.

2. Drain off all the surplus water and **save it**.

3. Grind the hot, wet corn grains at once with the cracking wheel, then regrind with the shredding wheel.

4. Add salt and shortening and just enough milk or water (using the water drained off the corn grains after boiling) to make a dough of the consistency and elasticity of flour biscuit dough after the shreds have been well kneaded or mixed together with a wooden potato masher in a mixing bowl. The water should be added

very carefully, otherwise the mixture will be too soggy.

5. Turn out on a bread board, using just enough flour on the board and the dough to prevent sticking, and knead it lightly.

6. Roll out the desired thickness to make biscuits, crackers, bread sticks, wafers, or even pie crusts, and bake as you would flour biscuit or crackers or wafers. The partial cooking of the starch in the corn is the secret of the elasticity of the dough, making possible the much wider use of corn.

Corn Bread, Cakes, and Dodgers

To make corn bread or dodgers, or batter cakes, add enough water or milk to make shreds of the consistency necessary to make good corn meal gems or bread. Make the top very wet, almost a slush, like spread bread; bake in a very hot oven. The bread without any baking powder or soda will be light, the flavor surprisingly good. Southern people, who are excellent judges of corn bread, unhesitatingly and enthusiastically declare that wet processed milling bread is the best they have ever tasted. There is a reason. It is 100 per cent of Nature's gift, converted quickly by home milling and cooking into human food without the loss of minerals, vitamins, or bran.

Any water left from boiling may be used to make bread or in gravies or soups. It is full of valuable mineral elements, and by adding a little cream and salt and drinking it hot it will be found to be as good as many of the soft drinks.

Hominy Better Than Grits

Excellent home-made hominy may be made by boiling for 20 to 30 minutes, and then cracking it with a coarse grinding wheel of a food chopper, or even with a meat chopper. It

may be prepared by placing in a pudding dish or pan, adding milk or the water left from boiling and a little butter and bacon. Such hominy is sweet, nutritious, and laxative.

Real Whole-Wheat Bread

Wheat.—**First method:** Boil the wheat ten or twelve minutes, or, if it is hard spring wheat, boil it fifteen to twenty minutes. Grind twice with the shredding wheel. If it is inclined to gum, spread the grains out two or three minutes until the moisture on the outside has dried off, and try again. Proceed exactly as with corn to make a dough for biscuits. For gems, batter, or spread bread, or batter cakes, add more milk or water and beat up well. Make the top slushy wet. Have the oven very hot, and bake.

Second method: Fill a bread pan heaping full of wheat shreds without shortening. Press firmly together after it has baked three to five minutes, then bake twenty to thirty minutes. When half done, moisten the top. Instead of slicing it, break and find how sweet it is.

Better Oats Foods

Oats.—Whole-grain oats, called in the market "groats," will shred with two to five minutes boiling. These are hard to get. Oatmeal, that is, rolled oats, is already partially cooked. To mill the oatmeal moisten very carefully with water or milk to saturate it just enough to grind with the shredding wheel, stir thoroughly, grind, make into a dough like the corn, and mix into cones, biscuits, wafers, or bread. The breads will be delightful, very sweet, wholesome, and nourishing.

Surprisingly delightful tea cakes and gems can be made from rolled oats. Moisten, grind, add shortening,

salt, milk or water. Knead to a dough. Add more milk or water, beat thoroughly, and pour into hot, greased gem pans. Make the tops very wet and smooth. Bake in hot oven.

Rice Bread

Rice.—Do not boil rice that is to be shredded. It is sure to gum. Pour one cup of water boiling hot over one cup of rice. Let it stand covered an hour or more, shred cold and wet. Very delicate bread in gem or loaf form can be made from the rice, especially from the natural brown rice. Rice shreds and corn shreds combined, half and half, make fine loaves, batter cakes, dodgers, and gems.

Unshortened Bread

Unshortened breads can be made from any of the grains, as follows:

Fill an English muffin ring or gem pan, or bread pan, heaping full of the moistened shreds; heat in the oven a few minutes, then press the shreds together firmly with a potato masher. Moisten the top. Bake or steam for twenty minutes and then bake in an oven. When just right, it is very tasteful and, in cases of impaired digestion, very valuable as a bread with butter or as a cereal.

Drying

Any of the grains can be cooked and ground into shreds as stated above. After cooking they may be dried out in slow oven or over the stove or on a radiator or out in the sun. When "bone dry" put the shreds away in jars or boxes or bags, and in this way they will be ready for quick use at any time. Place a sufficient amount of the shreds in a mixing bowl, cover with boiling water or milk, and let them stand five minutes covered. They can then be worked into a dough and from a dough

to a batter just as with freshly ground shreds. If the shreds do not work into a dough readily, moisten slightly and grind with shredding wheel.

Breakfast Foods

If any one will calculate the price per bushel he pays for wheat or corn in the usual breakfast foods he will be surprised to find that the price runs from \$5 to \$30 per bushel. This makes cereal products a very expensive luxury.

Thoroughly satisfactory breakfast foods can be made in any home or community in three ways:

First way: Boil the grains according to the time-table given above for making bread, toast the shreds or flakes at once very carefully in an oven or in a spider on the stove or under a broiler or grill, or put them away to dry out thoroughly. It is better, perhaps, to dry the shreds out and then toast them very lightly and put them away. Then they are ready with a moment's heating to be used as a crisp, delicious cereal that is 100 per cent of the whole grains, bran, minerals, and vitamines. The flavor surpasses that of soft cereals. The mastication required develops the natural flavors of the grains and insures complete digestion, which is one of the prime factors in food conservation; and the cost is only the cost of the grains, plus ingenuity and initiative.

Second way: If one wishes to make perfectly sure that the starch in the shreds is thoroughly cooked, it may be well to steam them in a colander for half an hour; then, when they are cold, regrind, dry, and toast them.

Third way: Bake an unshortened loaf of bread from any of the shreds. Break the loaf into pieces the size of an egg. When cold, grind and toast the flakes or shreds lightly. Put away for use.

Good breakfast foods can also be made from any scraps, however dry, of bread, wheat, corn, or other bread. All that is necessary is to moisten slightly, grind with the flaking wheel, toast lightly, and use at once or within a few days before the shortening in the bread becomes rancid.

Mushes and Spoon Bread

Mushes and spoon bread may be made by filling a casserole or pudding dish with dried shreds of any of the grains. Pour sweet milk over them, dot with butter, and bake twenty to thirty minutes.

Five-Minute Soups

Delightful soups can be made in five minutes by partially cooking and then shredding navy beans, butter beans, or any other kind of dry beans, peas, lentils, rice, or barley. Boil and dry beans or peas about ten minutes, using just enough water to have little or none left. Shred at once while hot, dry them out thoroughly, then toast just enough to develop a light golden color like delicate toast. From these toasted shreds, with five or not more than eight or ten minutes of boiling at the outside, a soup can be made ready to be flavored as one wishes with a surprisingly pleasing aroma of its own that an Irish student said reminded him of the aroma of the bean blossom. It is possible to make a pint of soup or broth in a hall bedroom, or a hundred gallons of soup for a regiment with just a few minutes of boiling. These same shreds can be used as a basis for rich, meaty gravies and chowders, meat-like hashes and loaves, by adding a little sage and other seasoning. In making soups care should be taken to have the water boiling rapidly. Stir in the dried, toasted shreds, more or less as a light or thick soup or purees are

desired. Boil five to eight minutes and season to taste. To make Boston baked beans blush with envy, fill a pudding dish with the dry toasted shreds, burying in them two or three small onions, whole, not chopped; cover all with milk and dot with butter, and bake twenty to thirty minutes.

For Universal Use

From the same dried shreds of beans, peas, and lentils can be made a dough or batter mixed with potatoes or rice, if one wishes, and made into scalloped dishes, croquettes, meat substitute loaves, sausages and hash. All of these and other dishes, that any inventive woman looking for variety will think of, are invaluable, not only in saving time and fuel, but it is a conservative estimate that ten ounces of shredded beans and similar products prepared in the ways indicated will satisfy hunger as much as a pound ordinarily boiled or baked. Digestive efficiency is a cardinal factor in food conservation. The hygienic side is to be remembered. An officer in the Mexican war said that the half-cooked beans of the soldiers' mess killed more soldiers than the bullets of the enemy. The various shreds of the grains and the legumes would be of priceless value to working girls who must cook for themselves before and after a day's work. So often these girls in sheer weariness and for lack of time live on tea and pastry products. Vital health and moral stamina are weakened by a dietary lacking bulk, greens, minerals, and normal flavors, plus too much sweets. The value of shredded beans, peas, and grains as an emergency food for armies and the growing army of campers is inestimable.

Devitalized Rations

Food evangelists are everywhere urging the South to feed itself or go

hungry. The best thing after growing bigger and better crops would be for each family or community to mill its own products with hand power or electrically driven machines, avoiding the useless tax of long-distance transportation and unnecessary handling, not to mention mishandling. To destroy the minerals and vitamines of the grains is to devitalize and reduce their dynamic efficiency, as well as the good health and efficiency of those that eat such denatured foods. The sooner we revert from the use of foods valuable only for their looks to some of the elementary principles of milling and cooking natural grains and foods, the stronger, healthier, and richer our people, our State, and our Nation will be.

WISE WAR MEASURE

The State of New York has a law which requires counties having a population of over 35,000 to erect and maintain county hospitals for the care and treatment of persons suffering from tuberculosis. Exemption from the provisions of the law is made only in such counties as already have such institutions, provided they are approved by the State Commissioner of Health. The law further provides that the hospitals provided for in the act must be ready for occupancy on or before the first day of June, 1918.

This new law, it should be explained was passed as a war measure to provide care and treatment for New York soldiers who may contract tuberculosis in the trenches and who may be sent home as invalids. Treatment will also be provided for cases discovered among the recruits examined for service.

No army is good if the health of its men is poor. No army is strong if its individual members are weak.

THE COMMON DRINKING-CUP

Mothers often wonder how their children contract such diseases as diphtheria, scarlet fever, measles, whooping cough, and chicken pox. Some believe it is just natural for children to have such diseases; others think the infection is carried in the air; and there are not yet a few who attribute it all to Providence. Just think of blaming Providence for something of which a dirty old tin cup is guilty!—the common drinking-cup.



THE DOCTOR'S VISION OF HOW MARY CONTRACTED DIPHTHERIA.

Many a mother has been puzzled to know where Mary contracted diphtheria or Johnny got measles, and never suspected the drinking-cup at school. They didn't know that the germs of these diseases are carried in the saliva and discharges of the nose and throat of well children as well as sick children. For this reason the common drinking-cup is especially dangerous as a spreader of disease. Children don't have to be sick to carry disease germs in their saliva.

Mothers, know if the school to which you send your children tolerates the use of the common drinking-cup. If there is no other way for the children to get water, provide yours with individual cups, and let them know why you do it.

NOTICE TO READER.—When you finish reading this magazine place a one-cent stamp on this notice, hand same to any postal employee and it will be placed in the hands of our soldiers or sailors at the front. NO WRAPPING—NO ADDRESS.



The Health Bulletin

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AN ODE TO HEALTH

“Health of itself makes life a perpetual joy. Nothing daunts, nothing overawes, nothing discourages and nothing overpowers the man and woman possessed of health. Health means not only vigor and energy of body, but also clarity and strength of mind; purity and beauty of soul. The healthy person dominates life instead of allowing life to dominate him. He scarcely thinks of his body as consisting of parts or as performing separate functions. To him the body is but one harmonious whole. He is a unit, a being, a man; complete, vigorous, perfect. To such a man work is a joy. He regards obstacles as but opportunities for testing his strength. He hardly knows what weariness is. He never experiences exhaustion. Merely to grasp his hand is a pleasure. To gaze into his eyes is a joy. To hear his voice is to feel a thrill pass over one. To peer into his mind serves as a stimulus to higher achievement. Health supplies the courage, the aggressiveness in life. Without health one is bankrupt regardless of what his financial capital may be. He becomes a cipher in the world of real men and women. If you have health, then, friends, cherish it, guard it, and treasure it as you treasure life, for out of it are the issues of life.”

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FREE PUBLIC HEALTH LITERATURE

The State Board of Health has a limited quantity of health literature on the subjects listed below, which will be sent out, free of charge, to any citizen of the State as long as the supply lasts. If you care for any of this literature, or want some sent to a friend, just write to the State Board of Health, at Raleigh. A postcard will bring it by return mail.

No. 12. Residential Sewage Disposal Plants.	No. 107. Life Saving Facts About Diph- theria.
No. 50. Baby Leaflet.	No. 116. Scarlet Fever.
No. 52. Malaria and What Everybody Should Know About It.	No. 117. Tuberculosis.
No. 53. Disinfection After Diphtheria, Measles, or Whooping Cough.	No. 118. Measles.
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No. 76. Save the Baby.	Teeth, Tonsils, and Adenoids.* How to Live Long.* A War on Consumption.* Milk.* Periodic Medical Examina- tion. Typhoid Fever and How to Prevent It.*
No. 79. Hygiene at Middle Life.	Concrete Septic Tanks.‡ Anti-Spitting Placards (5 inches by 7 inches).
No. 80. Prevention of Degenerative Dis- eases.	Anti-Fly Placards (14 inches by 22 inches).
No. 81. The Prevention of Colds.	Anti-Typhoid Placards (14 inches by 22 inches).
No. 85. Constipation.	Anti-Tuberculosis Placards (14 inches by 22 inches).
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No. 95. Important Facts About Tubercu- losis.	
No. 96. The Baby.	
No. 98. The Teeth.	

*Furnished by courtesy of the Metropolitan Life Insurance Company.

‡Furnished by courtesy of Portland Cement Association.

THE Health Bulletin



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EDITORIAL

EAT LESS AND LIVE LONGER— SAVE FOOD AND WIN THIS WAR.

The recommendations of our present excellent Food Administration are in direct line with the best and latest hygienic teachings. There is no longer any doubt that at least nine persons out of every ten not only eat much more than is necessary for them but more than is really good for them. A very great many of our old age ailments and diseases, such as kidney troubles, hardening of the arteries, apoplexy, and many others, are caused by habitual or occasional over-eating. Similarly, much of our every day "stomach trouble," headache, constipation, dull, "no count feeling," and general mental and physical inefficiency is due to unwise eating, particularly to over-eating. A good rule to follow is to stop eating just before you feel that you have had quite enough. By all means avoid that usual "American Sunday gorge."

If we would eat less, take more outdoor exercise, and eliminate more of the waste products of the human machine, most of us would soon be reveling in the real joys of living. Our daily work would be play, and life itself, instead of being just one grind after another, would be one continuous, joyous, springtime holiday. Taste of the joys of real health once and who would revert to his former state of sluggish physical and mental inefficiency? Eat less and more wisely.

In direct line with these suggestions, Mr. Hoover gives such excellent advice on saving food to win this war that we quote him in full:

Save the Wheat.—One wheatless meal a day. Use corn, oatmeal, rye or barley bread and nonwheat breakfast foods. Order bread twenty-four hours in advance so your baker will not bake beyond his needs. Cut the loaf on the table and only as required. Use stale bread for cooking, toast, etc. Eat less cake and pastry.

Save the Meat.—Beef, mutton or pork not more than once daily. Use freely vegetables and fish. At the meat meal serve smaller portions, and stews instead of steaks. Make made-dishes of all left-overs. Do this and there will be meat enough for every one at a reasonable price.

Save the Milk.—The children must have milk. Use every drop. Use buttermilk and sour milk for cooking and making cottage cheese. Use less cream.

Save the Fats.—We are the world's greatest fat wasters. Fat is food. Butter is essential for the growth and health of children. Use butter on the table as usual but not in cooking. Other fats are as good. Reduce use of fried foods. Save daily one-third ounce animal fats. Soap contains fats. Do not waste it. Make your own washing soap at home out of the saved fats.

Save the Sugar.—Sugar is scarce. We use today three times as much

per person as our allies. So there may be enough for all at reasonable price. Use less candy and sweet drinks. Do not stint sugar in putting up fruit and jams. They will save butter.

Save the Fuel.—Coal comes from a distance and our railways are overburdened hauling war material. Help relieve them by burning fewer fires. Use wood when you can get it.

Use the Perishable Foods.—Fruits and vegetables we have in abundance. As a nation we eat too little green stuffs. Double their use and improve your health. Store potatoes and other roots properly and they will keep.

Use Local Supplies. — Patronize your local producer. Distance means money. Buy perishable food from the neighborhood nearest you and thus save transportation.

General Rules.

Buy less, serve smaller portions.

Preach the "Gospel of the Clean Plate."

Don't eat a fourth meal.

Don't limit the plain food of growing children.

Watch out for the wastes in the community.

Full garbage pails in America mean empty dinner pails in America and Europe.

If the more fortunate of our people will avoid waste and eat no more than they need, the high cost of living problem of the less fortunate will be solved.

HERBERT HOOVER,
U. S. Food Administrator.

WHAT IS THE RED CROSS SEAL?

The purpose of the Red Cross Seal is to support the campaign against tuberculosis in every community, county and State in the Union.

The message of the Red Cross Seal in addition to its Merry Christmas and

Happy New Year is that the fight against tuberculosis is winning. Every Christmas sees a bigger and a fiercer fight, with the result that the next year sees less sickness and death from this disease.

The purchase of the Red Cross Seal is the people's opportunity to help to win not only the fight against tuberculosis but the war against Germany. Germany claims that tuberculosis is her greatest ally.

The price of the Red Cross Seal is only one cent. In no other way can so small an investment bring in so large a return. But pennies must make millions before they win against tuberculosis. This disease costs us every year more than the war will cost this year.

The aim of the Red Cross Seal is to do three times as much work in preventing and curing tuberculosis next year as was done this year. War has increased tuberculosis and our responsibilities to it three-fold. This means that whereas North Carolina raised \$12,000 from the sale of Red Cross Seals last year, she must raise between forty and fifty thousand this year.

The proceeds from the sale of the Red Cross Seals are used for anti-tuberculosis work as follows: 75 per cent in the town or community where the seals are sold, 15 per cent in the State directed by the State Red Cross Seal Commission, and 10 per cent goes to the American Red Cross to pay for printing and distributing the seals.

NO DANGER FROM PELLAGRA.

Pro-German activity and propaganda is insidious and comes disguised in many forms. As the State Board of Health had contemplated, there is now apparently on foot some pro-German activity in the form of a patent-medicine propaganda, directed against the present efficient Food Administra-

tion. This pro-German activity has manifested itself in the form of a press notice intended to suggest that the present high cost of living and the present agitation in regard to the increased use of corn would bring an increase of pellagra in the South. These press notices reach their climax in a bungling, unscientific press notice from which we quote:

"While corn meal is highly nutritious and a most palatable food, it contains a heavy percentage of Pellagra prophylactics and a too frequent use of it as a food will tend to increase the development of Pellagra."

The press notice concludes with the advertisement of a patent-medicine or secret nostrum as a pellagra cure. The unscientific basis of such statements will be seen when we consider that a prophylactic is a preventive and not a cause for a disease.

The State Board of Health has already considered the question of the present food situation and its relation to the health of the people of the State, and it is prepared to advise the public to the effect that no confidence need be placed in any reports which advise that a corn diet such as is recommended by our Food Administration would have anything to do with any possible increase of pellagra. The old idea that musty or moldy corn produces pellagra has long since been exploded. It is now generally known that pellagra, like Beri-Beri and rickets, is a disease caused by an unbalanced diet in which certain protein elements, such as are contained in milk, beans, peas, eggs and lean meat are noticeably absent.

With further reference to the matter of corn, it has been found by one member of this board (Dr. Edward J. Wood of Wilmington, N. C.) that the use of corn chops or a tea, or extract from corn chops is one of the best and most efficient means of curing pella-

gra. In view of the fact that we now know that pellagra is caused by an unbalanced diet and not from corn or any of its products and in view of the fact that obedient to State and National recommendations our people have canned and dried for winter use a larger quantity of beans, peas and other similar materials than ever before, the State Board of Health sees no occasion for alarm in regard to any possible increase in pellagra on account of the use of corn. This board merely wishes to warn the unwary against any possible deception at the hands of pro-German patent-medicine venders.

WHY BUY RED CROSS SEALS?

Because—

We are at war.

War increases tuberculosis.

Tuberculosis is Germany's greatest ally.

Red Cross Seals help to prevent and cure tuberculosis.

To care not only for our home cases of tuberculosis, but for our soldiers who will be returned to us invalided with the disease, is our most urgent duty. We are expected to meet it.

To buy Red Cross Seals is the way and the opportunity offered us. Now is the time.

There are more reasons today why we should buy Red Cross Christmas Seals than ever before. We are at war and war increases tuberculosis. Each State and each county is expected to care not only for all its cases of tuberculosis at home but for every case that may be returned from the battlefield. To meet these needs is our duty. Buying Red Cross Seals is the way to meet it.

Governor Bickett says: "Buy Red Cross Seals with a joyous generosity. Open up your heart and your purse strings will loosen at once."



PUBLIC HEALTH AND SANITATION



A CRYING NEED FOR PUBLIC HEALTH NURSES

DR. L. B. McBRAYER,
Superintendent of State Sanatorium for the
Treatment of Tuberculosis.

The demand for public health nurses throughout the United States has been far greater than the supply, for three or four years. The demand increases very much more rapidly than the supply. The considerable number of public health nurses that have gone and are going to the war reduces the number available and widens the gap between demand and supply. If by waving some magic wand we could increase the available supply tenfold, the demand would not be lessened to any appreciable degree; but there is no magic talisman that will convert a woman without special training into a public health nurse.

The Way Out.

There has been such a paucity of schools giving instruction in public health nursing that those who desired found it difficult to procure the necessary instructions, but these schools have multiplied rapidly for the past two years. The oldest school, I believe, is Columbia University, which gives an eight months' course and a four months' course. Boston and Chicago also have schools. More recently the Wisconsin Anti-Tuberculosis Association, Dr. Hoyt E. Dearholt, Executive Secretary, Milwaukee, Wis., has been giving a course, and this fall the University of Cincinnati is giving a course. This year there is a course

offered in Louisville, Ky. For information address Dr. W. L. Heizer, Executive Secretary of the Board of Tuberculosis Commissioners, Frankfort, Ky.

So far as I know there are no scholarships available for any of the above mentioned schools of public health nursing, though I am not positive as to this statement. There has recently been organized in Richmond, Va., the Richmond School of Social Economy, Dr. H. H. Hibbs, Jr., Director, 1112 Capitol St. This school, and I believe all the others, meet with the approval of the National Organization for Public Health Nursing and the Town and Country Nursing Service of the American Red Cross, and other authorities. There are certain scholarships available for the Richmond School of Social Economy, as follows: Two scholarships of \$250 each donated by the Metropolitan Life Insurance Co.; one scholarship of \$250 by the United Daughters of the Confederacy, and a fourth scholarship of \$250 given by the Town and Country Nursing Service of the American Red Cross. Any one interested in these scholarships should write to Dr. H. H. Hibbs, Jr., Director of the Virginia School of Social Work, 1112 Capitol St., Richmond, Va. We are informed by Dr. Hibbs that he desires to give at least one of these scholarships to a North Carolina nurse.

In addition to the above, our State Board of Health has under consideration the organization of a school for public health nurses which, we trust, will be ready for work in a few months.

Qualifications

A nurse, to enter any of these training schools for public health nurses, must be a graduate of a regular training school for nurses connected with a good hospital and should have at least a high school education and more, if possible; should have some elements of leadership and a strong personality and be able to speak in public. Several of the latter requirements may be developed.

Emoluments

The first and greatest item, in regard to emoluments, to be considered, is the great opportunity for good, than which I know of none greater. The salary is also worthy of consideration and ranges from \$75 per month, twelve months in the year, for beginners, to \$1,200 to \$1,500 per year for those of more experience, and not a few of those who have had large experience are receiving \$2,000 per year. This does not include board, of course, but it often includes transportation, office rents and room rent.

Are the nurses in North Carolina and the South and the United States going to supply the demand made upon them, after a way has been provided, or are they not? If they do, all honor—if they do not, it will be a disgrace to their profession.

METROPOLITAN TO FURNISH STATISTICS

The Metropolitan Life Insurance Company, New York City, invites physicians, public health and social workers to make use of its valuable collection of mortality statistics.

These statistics present the principal causes of death among white and colored wage-earners in the United States and Canada. The material covers over ten million individuals for each of the six years, 1911 to 1916. Death rates are available for each race, by sex and by age period.

The company hopes in this way to aid in the study of disease and disability among wage-earners. It desires to stimulate medical investigation and research. By offering these statistics to the medical profession and to public health and social workers, the company expresses also its appreciation of the cooperation which it has received from physicians and others who have replied to inquiries and have given detailed information in thousands of cases. This assistance has helped to make the statistics more accurate and valuable.

All inquiries should be addressed to Statistical Bureau, Metropolitan Life Insurance Company, One Madison Avenue, New York City.

MARY'S LITTLE COLD.

Mary had a little cold,
It started in her head.
And everywhere that Mary went
That cold was sure to spread.

It followed her to school one day,
There wasn't any rule.
It made the children cough and sneeze
To have that cold in school.

The teacher tried to drive it out,
She tried hard, but—kerchoo-oo!
It didn't do a bit of good
For teacher caught it too.

—Lyda Allen DeVilbiss.

Recognized early, tuberculosis is the most curable of diseases. If called "malaria," "weak lungs," "chronic bronchitis" or some other spurious name until well advanced (and other members of the family have contracted tuberculosis) it is then too late to save the patient by changing the name of the disease.

When people go to their physician to be examined and not simply to get dope, we will have but few deaths from tuberculosis.

PERSONAL HYGIENE



INDIGESTION

Its Cause, Prevention and Treatment. What Is Indigestion?

DR. G. M. COOPER.

"Indigestion" is one of those meaningless terms that cover about a thousand and pathological conditions, ranging from gallstones to "kinking of the food canal." Next to the word catarrh, it is about the most overworked word in the English language. When a physician examines a patient and makes a diagnosis of indigestion, it means two things: First, the patient may have any one of many specific ailments; and second, the physician does not know what the trouble is with the patient.

After catarrh—always after catarrh—the physician hears indigestion from patients more times than any other complaint. Indigestion, together with its two brothers in iniquity—"stomach trouble" and "dyspepsia"—might be termed "Triplets of Sorrow."

The term indigestion has been recognized by the authors of the "International List of Causes of Death" as a cause of death. But in the printed list, together with instructions to physicians prepared by the Bureau of Census of the United States Government, physicians are urged to "avoid such indefinite terms as stomach trouble, dyspepsia, indigestion, etc., in writing a death certificate.

Gould's medical dictionary defines indigestion as "Same as dyspepsia." Appleton's medical dictionary defines

dyspepsia as "A condition in which the digestive power is weak or in which digestion is painful." The same authority then defines 86 different kinds of dyspepsia, ranging from "Accidental Dyspepsia" to "Uremic Dyspepsia," and including such forms as "Chemical," "Nervous," "Hysterical," "Smokers," and "Symptomatic."

What Indigestion Is

To say that one has indigestion or dyspepsia or stomach trouble is no more telling what the trouble is than simply stating that one has pain. Every good physician knows that when a patient presents himself, complaining of indigestion, that the patient may have appendicitis or any one of a number of conditions, so the good physician always proceeds to find out just what the trouble is. The tragedy with so many people is that after a few years of over-eating or irregular eating, intemperance, over-work, worry, decayed teeth, and other conditions, Nature begins to fail to perform her normal functions. There ensues a period best described as "digestive disturbance." The patient has pain in the abdomen, sometimes before eating, sometimes after, sometimes all the time. There is headache; a feeling of lassitude, and constipation usually follows. Nine times out of ten there will be pain in the back, especially close under the right shoulder blade, and the patient will think he has so-called kidney trouble. At this stage most people make either one of two mistakes, which are sure to cause long delay in procuring relief, if,

indeed, a cure is ever realized. One mistake is to consult a physician who is content to make his diagnosis without getting up from his easy chair. Such physicians have a standard formula which may be said to be composed of one hundred parts, as follows: The patient's statement, eighty-five parts; a look at his tongue, five; counting his pulse rate, five; and inquiring about his appetite, five—total one hundred—and the diagnosis is made. It does not take very much expensive equipment, brains, hard study or effort to make a diagnosis like the above. It is needless to add that such physicians always prescribe a "digestant," usually in the form of a proprietary tablet, either green or brown, according to the color most pleasing to the retail drug man. The patient, of course, seldom ever gets any better permanently.

The other mistake, which is usually made first, is to decide to save the doctor's fee, and buy a bottle of "Dr. Fakir's Sure Cure for Indigestion." This always spells disaster. All patent medicines for indigestion, if they contain any active drug at all, are loaded with laxative or cathartic drugs which soon destroy the normal tone of the intestines (bowels) and so delay all hope of cure. Other popular brands of patent "Stomach Remedies," "Stomach Cures," "Tonics," and so on, contain enormous quantities of alcohol or a combination of alcohol and a laxative. Since one of the common causes of indigestion is alcoholic drink, an alcoholic remedy is of course worse than nothing. They may stimulate temporarily, but they always leave the victim worse in the end than he was at first.

Prevention of Indigestion

As in everything else, the best rule of life is to prevent disease rather than attempt to cure it after it

appears. To prevent indigestion one should eat slowly and regularly. The diet should consist of the plainest, simplest of foods, well prepared. The food should be selected so as to afford a well balanced diet, consisting of sufficient protein, fats, starchy foods, etc. Meat of any kind, including fish and poultry, should never be eaten more than once a day, and should always be boiled or broiled, but never fried. Plenty of fresh vegetables and fruits in season, milk and butter, form a most important part of the diet. The bread should be whole wheat (graham) and corn bread, properly ground. Worries and trouble should be banished at meal-time, and, if possible, a rest should be taken after each meal.

Treatment of Indigestion

As plainly stated in the beginning, indigestion is generally a symptom of some specific condition, and there are many forms of so-called indigestion or dyspepsia, as enumerated above. Before any rational line of treatment can be commenced, the cause of the indigestion must be located. Therefore, the first and most important thing to do is to have a thorough examination made by a capable and careful physician. The best physicians in North Carolina today are giving their patients a neat, carefully prepared typewritten slip containing two diet lists—one list states specifically the food which the patient may eat, the other names the articles of food which are forbidden. These diet lists are often the only prescription such doctors give for dyspepsia. But in case the so-called indigestion or dyspepsia is only a symptom of an acute or chronic disease of some of the organs of digestion, heart, lungs, teeth, kidneys, and so on, the careful physician will make the discovery, institute the proper treatment, and often save the patient's life.

Some of the Things a Careful Physician Will Do

He will—

1. Take from one-half to one hour for the examination.
2. Obtain an accurate personal and family history (disease history).
3. Try to ascertain how much and what kinds of medicine (patent and otherwise) the patient has been taking, and for how long.
4. Find the correct blood pressure with an instrument specially devised for the purpose.
5. Record the correct temperature by the use of a clinical thermometer.
6. Make a chemical analysis of the urine.
7. Strip the patient to the waist and examine the heart and lungs with a stethoscope (an instrument for aiding the hearing).
8. Place the patient on an examination table and carefully examine the abdomen after removing the clothing.
9. Carefully examine the teeth and throat as well as look at the tongue.
10. Count the pulse rate one full minute with patient first sitting and then standing.
11. Thoroughly study and weigh his findings before making his diagnosis.
12. Write a list of articles of food the patient may eat, also a list containing what is forbidden. Hand the patient this with a prescription of whatever medicine is necessary.
13. Collect his fee. If the doctor has made a correct diagnosis and the patient follows his directions, this will be a lucky number for both.

STOP FINGERING

When surgeons discovered that it was their own infected fingers which carried germs into wounds they set about trying to discover a means whereby their hands could be rendered surgically clean, i. e., free from germs. The whole realm of chemistry was

ransacked for agents which would disinfect hands, and the scrubbings and immersions to which they subjected their hands are even yet a tender memory to the surgeons of that period. But all of these efforts proved useless and at last in despair surgeons took to wearing rubber gloves which could be boiled, thus bringing to each patient, as it were, a fresh pair of sterile hands. In other words, try as you will you can't by any known method make your hands absolutely clean.

The great agent in the spread of those diseases whose causative organism is present in the secretions of the mouth and nose, is the human hand; and if saliva was bright green we would be amazed at the color of our fingers. As a matter of fact most of us carry our fingers to our mouth and nose many times daily, there to implant the germs of disease which other careless people have spread about, there to collect a fresh cargo of infectious material to scatter for somebody else.

The answer is to keep your fingers out of your mouth and nose. Thus we limit the spread of disease from those orifices at least, thus we eliminate the danger of contracting disease from someone else who is not quite so careful.

Short rations in Germany, it is said, have caused appendicitis practically to disappear. There are now no operations for and no deaths from appendicitis. Intestinal and gastric catarrh has greatly decreased and so has diabetes.

The man who bathes every day works better and can earn more money than the man who doesn't. He also stands a better chance of keeping well. If you haven't a bathtub, next time you move try to get into a house where there is one.



CHILD HYGIENE

WHY BABIES DIE.

The Kind of Parents as Well as the Kind of Home a Baby Has Affects His Life.

Poverty and illiteracy are killing more babies in this country today than all other causes put together. Enough American babies die every ten years to populate a city as large as Chicago, a State the size of New Jersey, or to make up nearly the total population of Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah and Nevada. And all these are babies under one year of age. As a matter of fact, a baby's first year of existence is the most dangerous of his whole life. A man seventy years old stands a much better chance of reaching seventy-one than a baby born today has of reaching its first anniversary. The main reason is the baby is born and forced to live its first days under conditions wholly unsuited to its tender life. What the parents are and do, as well as the kind of home the baby lives in, affects the baby's life.

Not many years ago, it was considered nothing unnatural and of little or no consequence to the Nation for so many babies to die annually. Apparently there had been noticed no shortage of babies and if there had been, who cared? Were babies worth anything except to their mothers who helplessly grieved when they lost them? Pigs were valuable. So were trees. Pigs were not allowed to get sick, much less to die—they meant money to the country—and trees were studied and given the best protection lest they suffer blight and grow up

stunted. Countries who did not regard pigs and trees more highly than they did their babies laughed at America and called her "notoriously wasteful of her most valuable resources"—her human beings. This made America think, and take steps to redeem her unenviable record. But it has taken war to drive home the lesson with such force that saving pigs and trees is now of minor importance to saving babies and children.

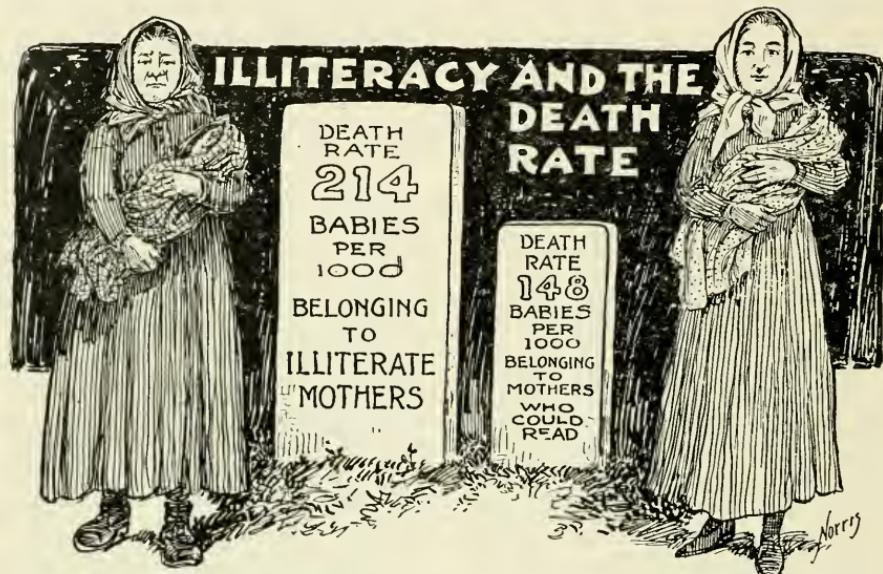
Some of the efforts that have recently been put forth for conserving child-life have discovered that the kind of parents a child has and the kind of a home it is given have almost all to do whether it lives or not. For instance, if the parents are illiterate the baby will be almost twice as likely to die before it is a year old than would be the case if its parents could read. The death rate of babies belonging to illiterate mothers is 214 per 1,000 against 148 for babies belonging to mothers who can read. Note the difference in the size of the tombstones which represent their baby death rates, in the cut on next page.

Another factor greatly influencing a baby's hold on life was the earning capacity of the father, and whether or not the mother was required to work to help to support the family. When the heads of families earn \$521 or less a year, the infant mortality rate in their homes is 255 per 1,000; when they earn as much as \$1,200, or more, this rate becomes as low as 84.

But babies have even a worse chance when their mothers have to work away from homes as bread-winners, in factories for instance. A study made recently of the employment of mothers

in cotton mills in Manchester, New Hampshire, by the Children's Bureau at Washington, shows that among women working in the factories the baby death rate was 227, while for mothers in the same community who did not work in the mills, it was only 133. The simple truth is that babies born under conditions where mothers toil day after day in the mills, who return to their work soon after their

was another factor. Fewer babies died in homes where the water was piped in than in homes where it was carried in by hand. Babies born in crowded houses died much more rapidly than babies in homes less crowded. It was found that babies who slept in a room with their parents only were less likely to die than when they slept in a room with more than two persons. Sleeping in their own separate beds lessened



children are born, and whose average earnings amount to only \$250 a year, are denied the first rights of humankind—a mother's care. Is it any wonder that they don't live when they are held less cheap than spun cotton or sacrificed for the mother's meager weekly pay envelope?

The kind of a home a baby is born in often determines his chance of living. Someone has said that the bathtub is a safe barometer of infant mortality. A recent study of how home conditions affect babies' lives, made also by the Children's Bureau, found that houses having bath-tubs had a baby death rate of 72, whereas houses without these conveniences had a rate of 164. Running water in the home

their struggle for existence also. The death rate for those who slept alone was only 55 per cent while it jumped to 108 for those who slept in bed with other persons.

Cleanliness in the home was another important factor. Almost twice as many babies died in damp, dirty houses as in clean, dry, airy homes. It is a well known fact that as housing, street paving and sewage facilities improve in a town so steadily does the rate at which babies die decrease in that town.

The important lesson to be gotten from the above is that families as well as towns and communities can largely determine their baby death rate.

CHILDREN AND TUBERCULOSIS.

There is nothing to show that there is any direct inheritance of tuberculosis. New-born infants do not react to the tuberculin tests. The defective development that may be observed in the offspring has no specific character, but the descendants of the tuberculous undoubtedly present a receptive soil for all diseases, not especially tuberculosis.

Children with a cough, anaemic children, poorly nourished children, those who have frequent fevers, enlarged glands or obscure bone and joint pains; in fact all children who fall below the normal standard of physical vigor and continue to do so should be carefully examined for evidences of tuberculosis. Frequent elevations of temperature and rapid pulse are often evidences of tuberculosis. A prompt von Pirquet reaction must be well-nigh conclusive evidence of active tuberculosis. In older children reactions that are prompt and marked must be recognized as of great importance in diagnosis of these cases.

The prevention of tuberculosis must have constant reference to its cause. The first essential is the destruction of the tubercle bacilli wherever they exist. Since more of those existing in the air are derived from the sputum of patients affected with pulmonary tuberculosis it should be insisted upon, everywhere and at all times, that the sputum from such cases should be collected in special cups or cloths and destroyed by burning.

The next point is to avoid needless exposure. A tuberculous mother should not nurse her child nor kiss it upon the mouth. No nurse or other care-taker should ever be employed about children who has, or ever has had, pulmonary tuberculosis. If active tuberculosis exists in any member of the family, a young child should be kept away from the room, and if possible should not reside in the house.

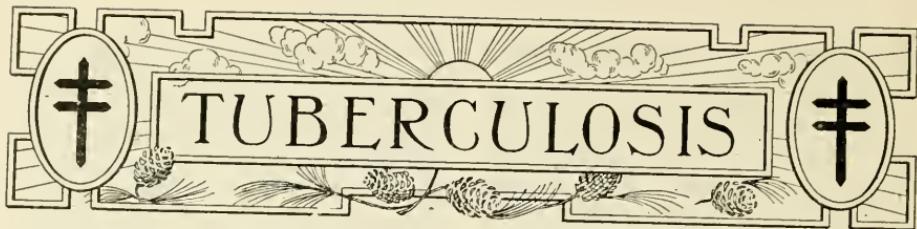
On no account should infected persons be allowed to kiss children or sleep in the same bed with them. A tuberculous person should either have his special drinking cup and special dishes, or the utmost care should be taken to boil all those which he has used.

Cows' milk used for children should be from cows which have passed the tuberculin test. In any case, when the slightest doubt regarding the health of the cows exist, or when the source of the milk is unknown, the milk should be heated to a temperature of 142 degrees F. and held at that temperature for forty minutes. The danger of infection through the alimentary canal is very much less than through the respiratory tract, and consequently the precautions first mentioned are much more important than those relating to the food, although the latter should on no account be neglected.

If fresh air and a proper climate are necessary for the care of this disease in adults, they are tenfold more necessary in the case of children. The same regions that are beneficial for adult cases usually agree with children, with the exception that the latter, as a rule, do better in a warm than in a cold climate. Plenty of fresh air and sunshine are essential. A child should be where he can be kept in the open air for the greater part of each day, in spite of fever, cough, or other acute symptoms.

It is just as foolish to expect to keep well and strong while living daily in foul, dirty air as it is foolish to try to keep in good condition by eating three times a day meals prepared from food materials which are not fit to eat.

Living for your country is just as patriotic as dying for it.



FRANCE AND TUBERCULOSIS

She Neglected Her Tuberculosis Problem in Time of Peace.

France, suffering from the many exigencies of war, is carrying the added burden of a vast amount of tuberculosis. By February of this year, according to Doctor Herman Biggs, 150,000 French soldiers had been returned to their homes with active tuberculosis, and there are many additional cases among returned

trasted with one per thousand in England and one and one-half in America), the war with its hardships has multiplied the problem until it can not be borne without help. England fought tuberculosis hard before the war, and she provided careful medical examinations to exclude incipient and latent tuberculosis from the army. The tuberculosis campaign in time of peace and the caution during the war are bearing fruit. A most wonderful demonstration that tuberculosis is preventable!

"To meet the War needs of the United States and to avoid the mistakes of European nations, state and local anti-tuberculosis organizations should not only maintain their integrity but should expand their forces. It would be the height of folly to draft tuberculosis experts and tuberculosis nurses for military service and later to find it necessary to meet the tuberculosis problem, which will inevitably come in case of active war, with wholly incompetent and untrained physicians and nurses."

prisoners, refugees, and the general population, making an estimated total of 400,000 tuberculous persons with practically no facility for properly caring for them or supervising them. Among the English soldiers, on the other hand, tuberculosis has not offered a serious problem. France is reaping the results of the neglect of tuberculosis in time of peace. She did not class tuberculosis as a public health problem; she permitted her people to cling to an almost ludicrous aversion to fresh air, and she provided few dispensaries and less than 1,000 sanatorium beds for tuberculosis in all France, and these in private institutions. Resigned to a high annual tuberculosis death rate during peace (three per thousand population, con-

It is not the cold of winter which makes people sick, ordinarily, but rather the stale over-heated air inside our houses and public buildings, which we breathe and rebreathe, thus passing disease germs about from one to another. Babies are particularly liable to be infected in this way, because they spend a large part of their time indoors, and because mothers are apt to feel that to keep the baby warm the rooms must be kept shut tight.

The plan adopted by the Rockefeller Foundation to save France from the scourge of disease is based on more education, more dispensaries, more nurses — more work among all the people.

CAUSES OF INCREASED TUBERCULOSIS IN EUROPE

Authentic reports, many of them official in character, attribute the great increase of tuberculosis in Europe to the following factors:

Failure to appreciate the importance of tuberculosis under war conditions.

Failure to meet the normal tuberculosis needs prior to the war.

Peculiar susceptibility of young men to active tuberculosis.

Failure to detect tuberculosis among soldiers at the time of enlistment, due to overwork of examining physicians and insufficient accent on tuberculosis.

Unusual tendency of tuberculous

soldiers with active tuberculosis to their families, thus spreading the disease in the civil population.

Inability to meet the tuberculosis needs of the civil population and of the returned soldiers on account of the drafting of expert physicians and tuberculosis nurses for military service.

HOW TO GET A FREE EXAMINATION.

When one or more of the classical symptoms of tuberculosis are noted for a week or more, a thorough physical examination, with the clothing removed to the waist line, should be

"To meet the tuberculosis problem of war, each State and each county should provide, either by public expenditure or private subscription, (1) Hospital accommodations for active and advanced cases; (2) Sanatoria for earlier and improving cases where the patient may stay until all activity of disease has ceased, whether it be a month or a year; (3) Dispensaries and visiting nurse service for after-care; (4) Farm colonies or carefully selected and carefully supervised employment. This will mean immediate activity on the part of existing tuberculosis organizations and health departments and the creation of active new tuberculosis organizations in practically every community and county in the United States."

persons to enlist and to conceal their illness.

Conditions in active service fanning incipient or dormant tuberculous infection into active disease; physical, nervous and emotional overstrain, loss of sleep, inadequate food and damp, crowded and insanitary quarters.

Enormous increase of tuberculosis in prison camps due to mental and emotional overstrain, insufficient food, overcrowding and insanitary conditions.

Obsolete methods of detecting tuberculosis among the men in active service whereby the disease is recognized only in an advanced and often incurable stage.

Inadequate hospital and sanatorium facilities necessitating the return of

made by the best and most careful physician in the community. Should no competent, painstaking physician be found with the proper instruments for making the examination, a letter should be addressed to the State Sanatorium, Sanatorium, N. C., asking for an appointment for a free physical examination by the tuberculosis experts at that institution. Never go to the sanatorium without first making an appointment. Hundreds of free examinations for tuberculosis are made there during the year, and unless you first make an appointment in advance you may have to wait a day or two. If you have the disease, you are fortunate in having found it early. If you don't have it, it is a satisfaction to know it.

TUBERCULOSIS IS CURABLE.

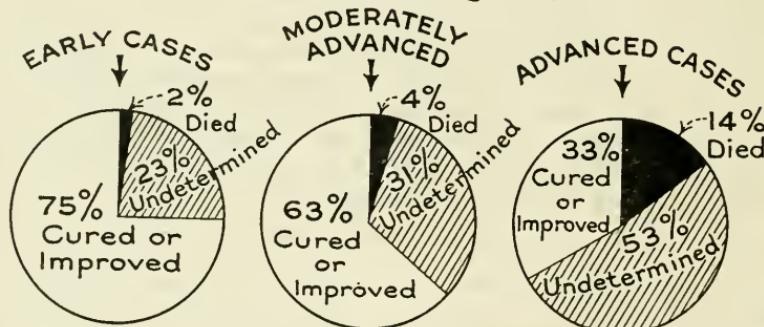
It is now generally agreed that tuberculosis is one of the most curable of chronic diseases. By all means the greatest factor in the cure of tuberculosis is the early diagnosis and the early treatment of the disease. In the accompanying cut it will be readily seen from the circle on the left that at least 75 per cent of all the early cases of tuberculosis who took proper treatment, were cured or greatly im-

Early symptoms of tuberculosis:

1. Loss of weight without any other apparent cause suggests tuberculosis.
2. Tiring easily after ordinary exertion suggests tuberculosis.
3. A cough that lasts more than three weeks certainly suggests tuberculosis, and should call for an examination by a competent physician.
4. A subnormal temperature (by the thermometer), in the morning and a rise of temperature in the afternoon

TUBERCULOSIS IS CURABLE but you should BEGIN THE CURE EARLY.

From two years experience in a large hospital we have:



proved, while only 2 per cent resulted fatally.

From the circle in the center of the cut it will be noticed that of the moderately advanced cases taking treatment only 63 per cent were cured or improved while 4 per cent died.

Of the advanced cases or those cases which are sufficiently pronounced that everybody recognizes them or strongly suspects them to be tuberculosis, only 33 per cent taking treatment were cured, while 14 per cent died. The important thing about tuberculosis, therefore, is to recognize the disease early and to begin the cure at once.

means tuberculosis 99 times in 100, and often the other time, too.

5. A low blood pressure, taken with the proper instrument, is indicative of tuberculosis.

6. A hemorrhage of the lungs means tuberculosis without exception.

Of course tubercle bacilli found in the sputum is a positive sign of tuberculosis, but the diagnosis should have been made long before the bacillus can be found and treatment begun. When tubercle bacilli can be found in the sputum it has already reached a rather advanced stage.



NOTICE TO READER.—When you finish reading this magazine place a one-cent stamp on this notice, hand same to any postal employee and it will be placed in the hands of our soldiers or sailors at the front. NO WRAPPING—NO ADDRESS.

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No. 9



PRESIDENT WILSON ON TUBERCULOSIS

"It is a cause in which the whole nation should be, and I believe is, interested. It is certainly one which is, in the view of every thoughtful person, of the most serious consequence to the whole country."

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FREE PUBLIC HEALTH LITERATURE

The State Board of Health has a limited quantity of health literature on the subjects listed below, which will be sent out, free of charge, to any citizen of the State as long as the supply lasts. If you care for any of this literature, or want some sent to a friend, just write to the State Board of Health, at Raleigh. A postcard will bring it by return mail.

No. 12. Residential Sewage Disposal Plants.	No. 107. Life Saving Facts About Diphtheria.
No. 50. Baby Leaflet.	No. 116. Scarlet Fever.
No. 52. Malaria and What Everybody Should Know About It.	No. 117. Tuberculosis.
No. 53. Disinfection After Diphtheria, Measles, or Whooping Cough.	No. 118. Measles.
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No. 75. Baby Welfare.	No. 126. Indigestion.
No. 76. Save the Baby.	Teeth, Tonsils, and Adenoids.*
No. 79. Hygiene at Middle Life.	How to Live Long.*
No. 80. Prevention of Degenerative Diseases.	A War on Consumption.*
No. 81. The Prevention of Colds.	Milk.* Periodic Medical Examination.
No. 85. Constipation.	Typhoid Fever and How to Prevent It.*
No. 86. Venereal Diseases.	Concrete Septic Tanks.†
No. 87. Sanitary Privies.	Anti-Spitting Placards (5 inches by 7 inches).
No. 88. Public Health Laws.	Anti-Fly Placards (14 inches by 22 inches).
No. 89. The Common House Fly.	Anti-Typhoid Placards (14 inches by 22 inches).
No. 90. Typhoid Fever.	Anti-Tuberculosis Placards (14 inches by 22 inches).
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*Furnished by courtesy of the Metropolitan Life Insurance Company.

†Furnished by courtesy of Portland Cement Association.

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EDITORIAL

WHAT ARE YOU WORTH TO UNCLE SAM?

Keep Well, First Duty—No Time for "Culls and Seconds."

Whether you go to the front or stay at home, you owe it to your country to—Keep Well.

That means more, however, than merely sidestepping sickness. For one may not feel sick at all and still be only 60, 70 or 75 per cent efficient. Keeping well means keeping 100 per cent efficient.

The men picked to go to the front are men picked because of physical vitality and ability to work up to the fullest possible efficiency.

Those who stay at home should also measure up to "war strength."

In such a gigantic struggle as we now face, every weakling and every sick and inefficient person in our land who is not more than taking care of himself, is just that much dead weight.

The very fact that the best of our men between twenty-one and thirty-one are being called away leaves the problem of keeping the wheels of industry turning, up to the men in the thirties, the forties, the fifties and in many cases up to those in the sixties.

Responsibility also rests upon the younger men who, for various reasons, are left at home. If the reason is a physical one, however, then it is up to them to get fit just as fast as possible.

We can't depend upon physical "culls" and "seconds" to supply food,

munitions, money and supplies almost without end for our own and the other forces now fighting for democracy.

Take an accounting of yourself. Find out if you really are worth your salt to yourself, to your boss—or to Uncle Sam!

Don't trick yourself into thinking that good health is merely absence of disease or sickness. Don't think that health will take care of itself without proper attention any more than a machine will continue to run smoothly unless oiled and repaired regularly.

If such were the case, there would not be some 2,900,000 persons constantly sick in this country.

Nor would it be estimated that the average annual loss through preventable sickness is not far from eight to nine days for each of the 25,000,000 or 30,000,000 industrial workers in this country.—Your Health.

When a child is apparently not well, he should not go to school. Unless it is certain that the illness was not of a contagious nature, he should not be allowed to return after recovery, without the approval of a physician. Even if the indisposition be so slight that it seems safe to ignore this rule, school attendance should be discontinued so long as there is any doubt whether the disorder is or is not communicable. The spread of communicable diseases in schools is due more often to the ignoring of this rule than to any other cause.

KEEP THE FARMER WELL

It has been stated that the supreme need of the Nation during the coming months is an abundance of food-stuffs. The truth of this statement is being more and more brought home to every citizen as the days go by, the constantly increasing prices of food materials constituting reliable evidence that the situation is becoming acute. One reason for this is the scarcity of labor in our rich agricultural sections, a condition which can not be altogether relieved. Another reason, and one which is frequently overlooked, is the lack of efficiency in the present day worker, particularly when due to disease. It is estimated that 4 per cent of the population of certain sections suffer from malaria, a disease which lessens production and results in serious economic loss.

"Keep the farmer well," should be a fitting slogan of the present day. There never was a time when production was in such need of stimulation and when able-bodied men and women were in such demand. Every case of malaria, typhoid fever or other efficiency reducing disease among the productive population means that the output of food is appreciably reduced and that the shortage is measurably increased. A large part of the lands in the richest sections of the South, and to a less extent in the North as well, is today partially or wholly unproductive on account of being overrun with malaria, with a consequent loss of millions of dollars. It is entirely feasible to reclaim these lands and thus increase the Nation's output. In certain areas the working ability of the population has been so affected by this disease that not only is there a shortage of growing crops but also of lumber, cotton and other manufactured goods. The moving of agricultural and manufacturing hands into these districts would not materi-

ally improve the situation as the newcomers would suffer a loss of efficiency fully as great as that of the older residents. However, if coordinated, intelligent and well directed effort is instituted this serious economic handicap under which we are laboring can be easily overcome. Already examples of individual accomplishment along this line are plentiful.

So thoroughly has the eradication of malaria been effected in the mill villages of Roanoke Rapids, Rosemary and Patterson, that the United States Public Health Service in its official reports cites this work as the best example of scientific sanitation done in the United States.

"As a result of this work, out of a population of about 5,000, there was during the year 1915 not a new case of malaria contracted and not more than a dozen recurrent or "hang-over" cases, whereas, previous to this anti-malaria work, 75 per cent of the population had the disease every summer, as many as 200 being sick in bed at one time. Another result, 50 per cent of the population was coming and going, but since 1914, the year of the anti-malaria work, the transients have settled down and the population increased 500.

"Mr. Patterson writing to Dr. R. H. von Ezdorf at Washington, D. C., said: 'During September, 1912, we averaged 66 looms standing per day for want of weavers, and during September, 1914, after the anti-malaria work had been completed, we had no difficulty running our looms, and during September, 1915, we had the greatest abundance of help. The money spent in anti-malaria work here has paid the quickest and most enormous dividends that I have ever seen from any investment, and we would do the work over again if necessary if it cost ten times as much.'"

If money talks, such a letter is better than a score of health lectures.

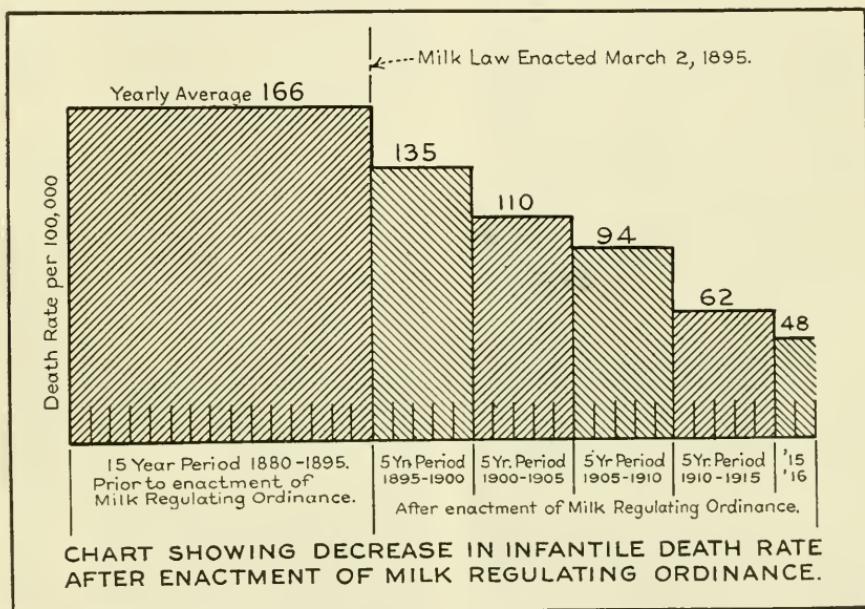
DURHAM WINS HONORS AT MILK SHOW

Sets Example for Whole State.

One banner, one bronze medal and four diplomas were the trophies brought home by the Durham County competitors at the recent National Milk and Cream Show held at Columbus, Ohio, October 17-27. The Health Department of Durham with a score of 96.45 was awarded first prize, a ban-

centimeter found in Mr. Ward's milk was 350; in Mr. Hester's, 400; in Mr. Wheeler's, 2750; in Mr. Wood's, 850, and in Parker Brothers, 750. Entries were made from all parts of the United States and Canada.

Durham's splendid record in this National Milk and Cream exhibit is an honor to Durham and a credit to North Carolina. The State Board of Health congratulates the city of Durham on having such a milk sup-



Clean Milk Reduces the Baby Death Rate

ner, for the best samples of market milk in the City Health Department class. F. A. Ward with a score of 98.1 was one of nine to be awarded bronze medals on high scores of market milk. Only two other dairy-men in the country surpassed him. O. W. Hester, with a score of 98, Paul Wheeler, whose score was 97.2; J. L. Woods, 95.6, and Parker Brothers, 95.5, were awarded diplomas. Mr. Hester stood head in the diploma class. Out of nine diploma awards, four went to Durham county dairies.

The number of bacteria per cubic

mill, the dairymen of Durham for producing it, and the Durham Health Department that made it possible.

The health value of a good milk supply is measured to a great extent by the number of baby lives saved. In the accompanying cut is shown the splendid reduction in the baby death-rate for Washington, D. C., after the milk supply for that city was cleaned up. The reputation for having a clean milk and a clean water supply does more than almost anything else toward putting a town on the map. Durham has both.



PUBLIC HEALTH AND SANITATION



WHAT ONE SCHOOL INSPECTOR FOUND

On Examining Rural School Children in Indiana.

Not to bring up a child in the way he should go, physically, mentally and morally, is a terrible sin of omission. And when we look about us and behold this sin is everywhere, and when we perceive it is largely the resultant of a misconception of true economy, then the strongest believer in humanity may be excused if his heart and mind are "sicklied o'er with the pale cast of thought."

The child is the great thing. Our only duty, usefulness and prayer is to bear healthy children and to bring them up in the way they should go. It is enough to do. What more can we do? What greater glory should we seek?

That the physical condition of our children is deplorable appears in the statistics of every medical inspection that has been published.

Who are we, that 70 per cent of our school children should have rotten teeth? Who are we, that thousands of our children are born of diseased parents, born of parents who carry transmissible defects in their germ plasm. Who are we, that thousands of our children on account of vicious environment and wicked neglect are allowed to become diseased and defective? Who are we, that because of forcing bad air, bad food and bad sanitation upon our children, they take on tuberculosis and die in early life?

Ignorance does not excuse, and we are not ignorant. On the contrary, we

know, but we seem not to understand, and certainly are not sufficiently practical to make practical use of our knowledge.

The prophet says:

"Through wisdom is the house builded, through understanding it is established, and through knowledge the chambers thereof shall be filled with all precious riches."

He was speaking of man, and his formula is eternally true and sound. In the urban and in the rural places, we are not generally well born. There is no medical inspection of would-be parents, and so endless numbers of weaklings are produced. The house is not well builded. Not being well builded, understanding, of which we seem not to be generously possessed, can not be firmly established. Not being well builded nor firmly established, knowledge has a poor chance to fill the chambers of the mind with all precious riches.

The fundamental law is known. If we obey, ours is the success. If we fail to obey, down we go.

And here begins our second lesson, which is "The Medical Inspection of School Children in Rural Districts." Nowhere is there greater disobedience of the laws of inheritance and the laws of health than in rural districts. There, mating is wholly, entirely, and absolutely haphazard. And there, laws of health and well-being are largely ignored. In cities, the conditions seem to be a wee bit better, for there typhoid is less, tuberculosis is perhaps less, and the death rate, leaving out accidental deaths, is less. In cities, the people more thoroughly separate themselves from their sewage, and

the bath is more in evidence. Adenoids and defects of the nose and throat are more prevalent in the country than in cities, and this despite the purer country air. And it still may be said the reason country air is so pure is because the farmer keeps the bad air in his house.

As in the city schools, we also find in those of the country, the larger proportion of children are neglected. Bad teeth prevail to such a degree that we express surprise when a good set is found. Coughs, colds and catarrhs "get" every child one or more times every school term, and some sniffle through every day of every year.

Cases of catarrh, weak and watery eyes and running ears are found, many dating from the time the helpless youngsters had measles or "scarlet rash." Emaciation from actual starvation is not occasional. In one rural school of twenty-seven pupils, I found seven anemic, emaciated children and five of these were actually starving. One little wizened girl had had one batter-cake with molasses for breakfast, and in her dinner-bucket for lunch was one soggy biscuit and one small apple. All of the twenty-seven pupils in this school needed medical attention. There was not a child that did not have two or more decayed teeth. Every child had suffered from one or more attacks of so-called "cold" during the winter, and sixteen said they had had colds since school opened in the fall. There was not a clean tongue in the school; even the teacher's wore a coat, and she, too, had several decayed teeth, and there was a knob at the base of the great toe on her left foot which projected the leather of the shoe to a marked distance beyond the sole. Her breath was reminiscent of the odor of a dead rat. One child had a running ear, seven had defective sight, every child had dirty ears, dirty neck and dirty scalp, and, of course, we found dis-

eased tonsils, enlarged neck glands, pigeon breasts, and skin eruptions. One girl fifteen years old, still in the third grade, suffered with dementia precox. This school was the worst ever found in Indiana. The word hospital should have been over the door instead of District School No. 3. The evidence in this instance was conclusive of the opinion that life is a disease.

In the rural schools of one county, forty-nine cases of trachoma were discovered. The parents were kindly informed by letter and urged not to neglect treatment. Two weeks after, it was found only one child was under treatment and he was a ward of the county court. Finally it was necessary to compel most of the parents to save the eyesight of their children. One mother, when asked why she did not take her child to the doctor, said, with a nasal drawl: "Oh, you doctors, you's just got another scheme to git our money." Another mother replied to the same question: "I had them sore eyes when I went to school and I got well. I ain't skeered." And does this not make plain that finally medical inspection and also care of children by parents must be made compulsory, just as was found necessary in the matter of education?

Medical inspection and health supervision are as greatly needed for teachers as for pupils. A truly sanitary schoolhouse, recently erected at the sewerless city of X, was inspected. The architect and the heating and ventilating engineers had done a good job. Every requirement of the law had been met. The lighting was from one side of the rooms and ample. The ventilating ducts were sufficiently large and the heating and ventilating apparatus equal to its task. The floors were hardwood and the desks were adjustable and correctly placed. The first room I entered, and also the second and third and fourth, were evi-



FORSYTH COUNTY

COUNTY SANATORIA

Every County Should Have a Tuberculosis Sanatorium.

That a county tuberculosis hospital is an absolute necessity is admitted by all persons interested in humanity or economics. Every one who is familiar with the deaths from, and prevalence of, tuberculosis knows that we must prepare to take care of the cases who have no means, as well as those who can pay, and that we must take care of the negro as well as the white. To do this as it ought to be done, all are agreed that every large county should make arrangements to take care of the whites and at least part of the negroes who have tuberculosis, and that the small counties should do the same thing by grouping together in such numbers, say two or three, as may be considered proper.

How Best to Go About It.

As an answer to that we present the plan adopted by the Forsyth County Board of Health and Board of Commissioners. We present in this issue of the Bulletin a perspective of their buildings, all of which, including steam heat, was built for \$14,000. This was intended to accommodate twenty-four patients, twelve white and twelve colored, divided equally

between the sexes, but by using the porches for bed rooms, it will accommodate twenty-four of each race, making a total of forty-eight together with rooms for nurses as well. This would probably be large enough for any county to start with.

In order to make the running expenses as light as possible and save the expense of buying a site, Forsyth County has built its sanatorium on the same farm as its county home. In that way it gets the benefit of the water, sewer system, and the fruits and vegetables grown there.

Financing the Proposition.

The Board of County Commissioners ordered the Chairman, Mr. E. T. Mickey, to proceed with the erection of the building, the expense to be met out of their general fund. Any county can do this, and if they find they are in debt they can issue bonds to cover their indebtedness, or if they prefer they can have the people vote on bonds for the purpose of building a county sanatorium. An act making this provision was passed by the 1917 General Assembly, being introduced by Hon. Clem Wright, of Guilford County.

Mr. E. T. Mickey, who was Chairman of the Board of County Commissioners, when the Forsyth County



S SANATORIUM

Sanatorium was built, deserves much credit for erecting the first county sanatorium in the State.

SANATORIA NOT DANGEROUS

Fortunate is that city or community in which there is located a tuberculosis sanatorium. Tuberculosis sanatoria are not a menace to health but on the contrary they are a decided asset. Instead of lowering real estate values, as is sometimes expected, statistics indicate that they always increase such values. Furthermore, statistics indicate that in villages, cities and communities in close proximity to tuberculosis sanatoria the mortality from tuberculosis has steadily decreased. The reason is not hard to find. The teaching of right living and proper hygiene and sanitation cannot be confined to the sanatorium. In fact the rules of right living, hygiene and sanitation, invariably creep out and, like gossip and bad news, they spread throughout the neighborhood for miles around.

As a matter of fact, one of the places best protected against tuberculosis infection is a well regulated, clean, tuberculosis sanatorium. This fact was illustrated not long ago in our own State sanatorium when one

of the physicians applied for life insurance. One of the routine questions which he was required to answer was whether or not he had lived or was living in close proximity to a case of tuberculosis. In answer to this question, he was obliged to answer that he was in daily contact with 150 or more cases of tuberculosis in connection with the discharge of his daily duties. Ordinarily, intimate contact with a single case of tuberculosis is sufficient to give rise to grave suspicions on the part of a life insurance company. This life insurance company made a thorough investigation of our State Sanatorium with the results that the life insurance applied for by the physician was promptly granted, despite the fact that he was daily in contact with a great many cases of tuberculosis.

Perhaps part of the reason for the general fear of the public in regard to tuberculosis is due to ignorance rather than full knowledge of the facts in the case. One of the fundamental things to learn in regard to tuberculosis is that a careful consumptive is not dangerous to live with, while a careless consumptive or an unrecognized case of tuberculosis is an exceedingly grave source of danger to everyone who in any way comes in contact with him.

WHAT ONE SCHOOL INSPECTOR FOUND

(Continued from page 191)

dently well ventilated, for the nose could not detect the staleness and soddenness which characterize the air of the usual urban and rural schoolroom. But alas, when I entered the primary room the olfactory nerve instantly wrote foul air upon the appropriate brain centers. What was the matter? Of course the pupils were heavy-eyed and drooping, and coughing was continuous in all parts of the room. Very languidly, a few of the helpless children looked at the intruders, but most were so thoroughly anesthetized that they never stirred. The teacher, emaciated, with bad teeth and putty skin, was forcing herself to teach the class of foul-air dummies. What was the matter? I looked at the teacher, she looked at me and cleared her throat. I felt sure she had it, and she did. Her general appearance and the peculiar sound which attends the clearing of the throat of a consumptive were unmistakable. Every room in this up-to-date schoolhouse had a teacher's private closet. My eyes wandered to the room closet. The door was closed, but I knew they would be found there safe on the upper shelf. I opened the door, and sure enough, there they were, two empty and one freshly opened bottle of yellow-wrapped cough cure. The poor teacher had not yet risen above the patent-medicine stage of ignorance.

I found the reason the air was foul was because the teacher said she was chilly all the time and had closed the exit ventilating duct with a large pasteboard teaching chart. Where consumptive teachers are, there will be bad ventilation.

One thing is surely true as proven by numerous medical inspections of rural school children, and that is tuberculosis will never materially

decrease any time nor anywhere, until the awful sin of the neglect of child health is abated to some degree. The first step for abatement is compulsory health supervision of school children, because the great majority of parents are woefully ignorant of the health needs of their children and most of these, when told, will not act. I believe there will be no marked reduction of tuberculosis from the present rate until medical inspection and health supervision of the child, are like education, made compulsory.—Dr. J. N. Hurty, Secretary, State Board of Health of Indiana.

EAT PLENTY OF POTATOES

"Now that the country's bumper potato crop is flowing into markets in an ever increasing stream the wise housewife will take advantage of this cheap source of starchy food and will give the tubers a very important place on the dinner table," say home-economics specialists of the United States Department of Agriculture.

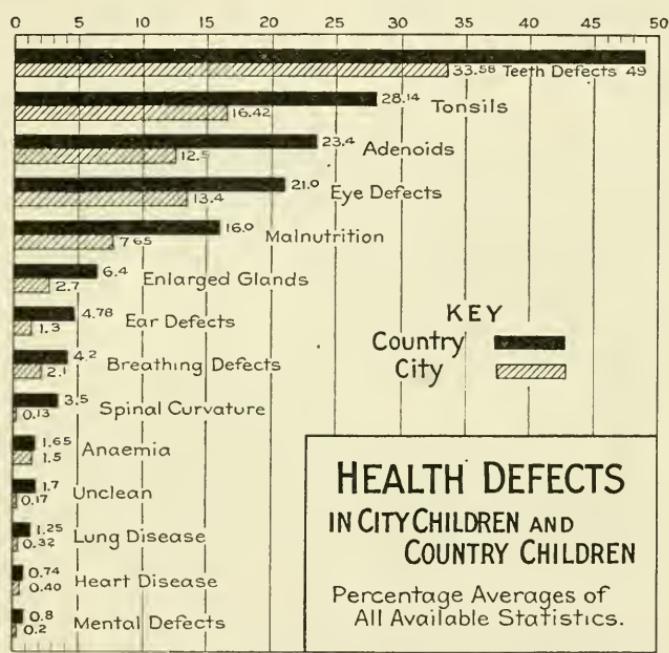
It is well known that potatoes are a nutritious and healthful food, of which one may eat freely without ill effects. As a matter of fact, say the department specialists, there is something more which can be said for the potato, for the liberal consumption of them helps to supply the body with alkaline salts which it needs for normal health. Eat more potatoes, for breakfast, lunch, dinner or supper, therefore, while they are abundant, say the specialists, to the advantage of both your health and your pocketbook.

"Don't worry! To worry about the past is to dig up a grave; let the corpse lie. To worry about the future is to dig your own grave; let the undertaker attend to that. The present is the servant of your will."—Hadock.

CITY VS. COUNTRY.

We are very loath to say anything uncomplimentary in regard to health conditions in rural districts; but, facts are facts and there is no way of getting around them. Some wit remarked once upon a time that "there must be an awful lot of fresh air in the country because the farmers have all the bad air shut up in their bed rooms."

children. It will be noticed, for instance, that 49 per cent of the country children had defective teeth while only 33.58 per cent of city children had bad teeth; 28.14 per cent of the rural school children have bad tonsils, while only 16.42 per cent of the city children are so affected and so on. As we go on down through the list of defects, we find that throughout the entire list the country children are suffering from



There may be a grain of truth in this remark, indeed the accompanying cuts seem to bear it out unusually well.

In the first cut, we have a comparison of the health defects among city children and among country children. The length of the black lines indicate the percentage of physical defects from various causes found in country children and the shaded lines represent the percentage of defects from the same causes found among city

a much greater handicap of physical defects than their city cousins. It is to remedy just such defects as these that our present medical inspection of schools law is going into effect.

In the cut on the opposite page, we have a comparison of the death rate of New York City and the death rate of New York State from the year 1900 to the year 1914. It will be noted that the city death rate, indicated by the dashed line, starts in the upper

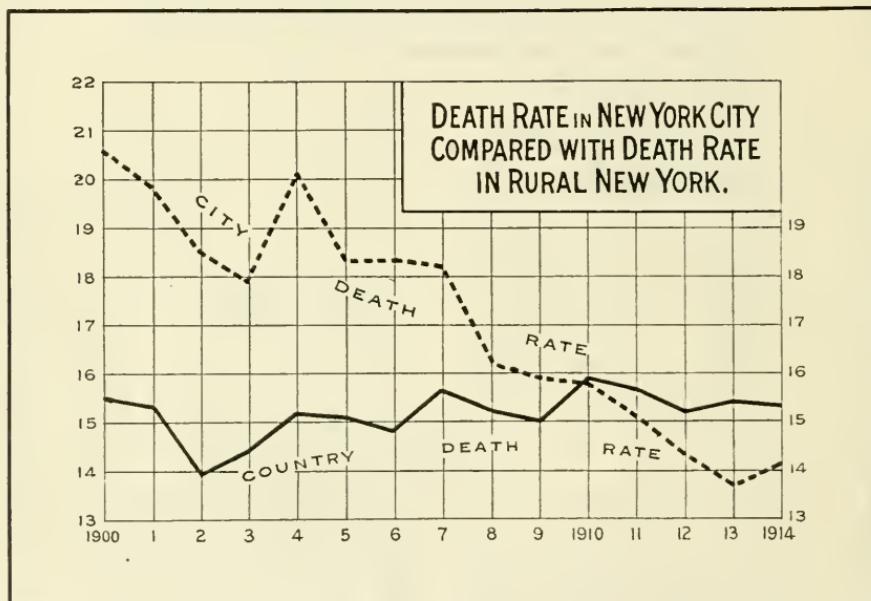
left-hand corner with a rate of between 20 and 21 deaths per 1,000 population, by means of efficient health work this death rate was reduced to approximately 14 per 1,000 population in 1914. On the other hand the rural death rate in the State of New York has remained at approximately 15 per 1,000 population during the entire 14 years.

The apparent explanation for this is, that while the country may be naturally more healthful than the city with its congested districts and con-

WEIGHT AND HEALTH

Light weight is not a disadvantage if one is otherwise in good health, especially after age 30. Overweight is always a disadvantage and should be avoided, especially by those approaching middle life. Keep your weight about the average figure for age 30, and do not let it creep up as you become older.

The death rate among those 50 to 80 pounds over weight at middle life is nearly double that of those slightly



fining indoor occupations, the good public health work in the city has brought the city death rate down lower than the country death rate where comparatively little real health work has been done. If a city laboring under such handicaps as those which confront the city of New York can make such a splendid showing in lowering its death rate, why should it not be readily possible for the State of North Carolina to make even a still greater reduction in our death rate through similar efforts?

under weight at that age. Some allowance must be made for type, a heavy-framed individual carrying naturally more weight than one slender and light-framed.

Dr. Fiske says Benjamin Franklin, a century ago, believed what we now know to be true, "that people who live in the forests, in open barns or with open windows, do not catch cold and that the disease called 'a cold' is generally caused by impure air, lack of exercise, or over eating."

FARM HOMES AND BATH ROOMS

Every Home Should Have a Sanitary Privy.

If I were a multi-millionaire, desirous of returning to the American people some small share of the wealth that I had accumulated for many years at their expense, I would not endow colleges or build libraries; I would devise some method of providing farmhouses with bathrooms.

Beside the arguments from the viewpoints of hygiene and sanitation, there is one purely medical reason for having a bathroom in the house if it can by any means be made possible. Constipation is probably a contributing factor to more illness than any other one cause, and constipation in the country is largely the result of the cold and discomfort of the privies. Country people in general lead an active life and eat food calculated to keep the bowels in a normal condition, but they induce constipation because they simply will not visit the privies until they are forced to do so.

The privy on the American farm has not received the attention that its importance deserves. Some American farms have no privy at all. This means that some farm families are being needlessly exposed to sickness and death. It means that these families are following a custom which not only needlessly increases sickness and death, but which decreases the value and productiveness of their farms. City health authorities are gradually awakening to the dangers connected with the supplies of milk, fresh vegetables and fresh fruits from insanitary farms; hence not only from the standpoint of preserving the health persons living on farms and increasing the productiveness of the farms, but also from the standpoint of marketing farm produce, it is important for

farms to be provided with sanitary privies.

When it is considered that every year there are from 35,000 to 40,000 deaths from typhoid in the United States, and about 400,000 cases of the disease, this alone puts a heavy responsibility on the improperly constructed privy, from which the great majority of the cases start. But beside typhoid fever, diarrhea and dysentery, eelworm, pinworm, tapeworm, hookworm and many other diseases are spread through polluted soil, the result of lack of proper sanitation in this regard.

Among the highest duties that rest upon a farmer, as a father and citizen, is not only to have a sanitary privy on his farm, but to insist that the pollution of soil with human excreta be prevented throughout the entire neighborhood by the use of sanitary privies. A compulsory sanitary privy law should be enacted and strictly enforced in every locality.

—Dr. Eleanor Mellen,
In Southern Farming.

“Failure to report cases of contagious disease, neglecting to placard houses according to law and concealment of cases by inmates of houses where such cases exist, are the chief causes of the spread of contagious disease and it is the duty, as well as in the interest of every citizen, to assist in carrying out the health laws.

Save food.

Always leave a clean plate.

Vary food used with the work done.
Eat all you need, but no more.

Have meat but once a day.

Every morsel saved is

A shot against the enemy.

Let fish replace meat.

The food you eat determines

Health, and health your happiness.



CHILD HYGIENE



HOW TO CURE DIPHTHERIA

Diphtheria is a curable disease, and, to a great extent, preventable. It is one of the few diseases for which we have a positive and specific curative agent, known as antitoxin, which, through years of experience, has become recognized as the only remedy capable of preventing death in the case of diphtheria.

Prior to the introduction of diphtheria antitoxin more than one-half of the cases of diphtheria died; today, however, only one out of every eight cases of diphtheria proves fatal. The State Board of Health believes that even this death rate can be largely reduced by the early and proper use of diphtheria antitoxin. In fact, it has been definitely proved that every case of diphtheria can be cured if the antitoxin is given during the first twenty-four hours of the disease. Such has been the experience at the Philadelphia Hospital for Contagious Diseases, where thousands of cases have been treated with the remarkable record that no case has ever been lost when the antitoxin was administered during the first twenty-four hours of the disease.

In order that this specific remedy may be administered early in every case it is necessary for the parents or guardians of children to call in the family physician whenever suspicions of the disease may arise.

How to Recognize Early Cases.

Whenever the child has a sore throat with white, flaky deposits on tonsils immediate suspicion of this dangerous disease should be entertained. It is not necessary to wait for further

symptoms, such as fever or marked physical depression, to appear before calling in the family doctor, since diphtheria is oftentimes very rapid in its course and may prove fatal if proper treatment is not administered at once.

Croupy cough is another suspicious symptom of diphtheria. When this disease affects the larynx or voice box, hoarseness of the voice and the characteristic ringing cough are the prominent symptoms. If the antitoxin is not administered immediately, the patient may die from strangulation by obstruction of the windpipe, caused by the diphtheritic membrane.

When diphtheria affects the voice box it produces a very distressing and pitiable condition. If the public could only see some of these children in the hospital fighting for air, there would be no question that every precautionary measure would be taken to prevent diphtheria. Furthermore, this particular type of infection may last for many months, and even years. Prolonged convalescence is caused by the delay in giving the diphtheria antitoxin. Artificial means must often be made in these cases by the introduction of a tube into the windpipe in order that the patient may breathe. In some instances these tubes must remain for long periods of time, oftentimes years, in order to sustain life.

A running nose is also a characteristic premonitory sign of diphtheria. Parents should look for a dirty-white material, which forms in cases of diphtheria and obstructs the breathing. Diphtheria making its appearance in the nose is oftentimes overlooked; for this reason we make special mention of instances where children suffer from obstruction in breathing.

SECRET OF VITALITY

What are the secrets of individual health and of the increase of vital force and resistance? Scientists differ in their opinion and doctors disagree in their verdict. Many theories are advanced and many formulas of life are advocated. All agree that of the many preventive measures, none are of such importance as exercise and moderation. Moderation in the exercise of all bodily functions is absolutely necessary for the increase of vital resistance and the prevention of disease. Bathing and the care of the skin is important and tends to increase vitality. Warm and temperate baths for cleanliness and sanitary purposes, cool and cold baths, as well as daily sponging of the body with cold water, all tend to insure the body against colds, and to promote the cardiac and circulatory functions.

Proper breathing exercises at stated intervals and in the open atmosphere tend to increase the respiratory activities and to strengthen the respiratory resistance. Muscular exercises with a view to using all the muscles of the body tend to strengthen the muscular system, to increase the vital activities of the body, to improve its circulation, and to make it more resistant to exposure and cold.

ABOUT THE FEET

Weak-foot is one of the hold-backs of the present day civilization. Foot-atrophy, through mistreatment of the foot, has come to be a common complaint. The demand for orthopedic aids to walk is becoming greater and greater. However, these aids may do, and do do, a great deal of harm, for they still further rob the muscles of their rightful function of support. Proper shoes and proper foot exercises should be used to strengthen the offending muscles for the relief of weakness in the arch. Bad walking habits, and bad fitting, badly-shaped, pointed shoes,

constitute very great factors in the development of weak-foot. A normal foot lies in a straight line from the great toe to the heel. Shoes should be built on the lines of the normal foot. High French heels are certainly an abomination. It is common to hear women say, who have long used the high French heel,—“I can not walk on a low heel.” This is because the tendon Achilles has become shortened. It has contracted through disuse, and when the high heel is removed and a heel of moderate height adopted, the tendon must lengthen again to meet the normal condition, and this gives pain. There should not only be a timely and vigorous campaign of education in the matter of proper footwear, but also there should be aroused a decided public opinion against shoes which are abnormal in shape and which bring defects into the human body.—Good Health.

Even if it were always true that one could have the children's diseases and “get them over with,” the illnesses resulting in time lost at school, the anxiety of the parents, and the cost of doctors and nurses constitute a real hardship for the average family. But these diseases are not so easily “over with.” They frequently leave in their train blindness, deafness, rheumatism, and permanently weakened hearts and kidneys. It will readily be seen that limiting the spread of communicable diseases prevents the development of physical defects.

Bad housing conditions do not necessarily mean that the houses are bad. More often it applies to the manner in which people use them. A perfectly good house for five people becomes a bad house when occupied by a dozen or more. The big important thing is that we make a right use of our houses, to keep them clean and see to it that they are not overcrowded.

GET A COLD CARD

Below we reproduce both sides of a little "Cold Card" which the State Board of Health has prepared and now has ready for free distribution. It will be found very timely just now for distribution in schools, among factory employees, clubs and else-

where. If you can use any to good advantage, write the State Board of Health at Raleigh, stating the number wanted, and they will be sent you free of charge. Publishers or others desiring to use the electrotypes from which these cards were printed, may borrow them if they will agree to return them promptly.

HOW TO AVOID "BAD COLDS"

Colds are "catching." Keep away from people with colds, grippe, "sniffles," coughs, etc. Coughing or sneezing without catching the spray in a handkerchief when indoors, spreads colds, grippe, pneumonia, and tuberculosis.



Live, work and sleep in the fresh air.

Avoid sudden chilling, wet feet, constipation, intemperance and overheated, over-crowded, unventilated rooms, churches, offices and stores. Keep healthy, strong, and robust. Healthy people ward off colds. Weak, "run down" people catch colds easily. For recurring colds have a medical examination to locate the cause.

Colds are dangerous. They pave the way for other diseases. Avoid them or cure them at once.

RESOLUTIONS FOR ANY DAY OF ANY YEAR

For the Well that They May Keep Well!

For the Sick that They May Get Well!

Resolved:

That I will take better care of my body.

Resolved:

That I will seek to know more about my body and so be better able to give it proper care.

HOW TO CURE A "BAD COLD"

Begin early. A slight headache, chilliness, feverishness, "running of the nose," sneezing, hoarseness, and sore throat are usually the first indications of an oncoming cold.

Take a good dose of some laxative. Drink lots of hot water or hot lemonade. Take a hot foot bath in a warm room, preferably in bed, for twenty minutes. Keep adding very hot water to the foot bath as rapidly as it can be borne. Go to bed in a hot bed (avoid any chilling) immediately after the foot bath. Keep warm by means of warm night clothes and clean, warm underwear and plenty of blankets. Wear heavy socks or stockings, if necessary. If possible, remain in bed for twenty-four hours. Keep the air in the room fresh, but avoid drafts. Rubbing the neck, chest, and nose with camphorated oil (one ounce of camphor to four ounces of cotton-seed oil) sometimes proves helpful.

Omit one or two meals, then eat fruits, vegetables, bran gruel, and bulky foods. Keep the bowels and kidneys active for several days. *Call a doctor in case of a chill and a pain in the side, or in case of no improvement within twenty-four hours. Pneumonia may be developing.*

Avoid rock and rye, catarrh cures, heavy doses of quinine, and patent medicines, at least until you are sufficiently recovered to withstand such things.

COMPLIMENTS OF THE
STATE BOARD OF HEALTH
RALEIGH, N. C.

Resolved:

That I will try to aid others that they make take better care of their bodies.

Resolved:

That I will endeavor, every day of every year, to

"Sleep in the Fresh Air."

"Work in the Fresh Air."

"Play in the Fresh Air."

"Live in the Fresh Air."

—E. G. Routzahn.



